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From the President

17 August 2020

Professor Graeme Samuel AC
Independent Reviewer
EPBC Act Review Secretariat
Department of the Environment and Energy
GPO Box 787
CANBERRA ACT 2601

Via Email: epbcreview@environment.gov.au

Dear Professor Samuel

***Environment Protection and Biodiversity Conservation Act 1999* Independent Review**

We are a College of 27,000 practitioners with expertise in human health and write to urge you to address the link between environmental protection, biodiversity and human health in the Independent Review of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). We call for the institutions responsible for developing and delivering national environmental law to include health experts including public health, occupational and environmental health, infectious diseases and respiratory physicians.

The Royal Australasian College of Physicians (RACP) trains, educates and advocates on behalf of over 18,000 physicians and 8,500 trainee physicians, across Australia and Aotearoa New Zealand. The RACP represents a broad range of medical specialties including general medicine, paediatrics and child health, cardiology, respiratory medicine, infectious diseases, neurology, oncology, public health medicine, occupational and environmental medicine, palliative medicine, sexual health medicine, rehabilitation medicine, geriatric medicine, and addiction medicine.

Beyond the drive for medical excellence, the RACP is committed to developing health and social policies which bring vital improvements to the wellbeing of our patients and the wider community. One of our priority policy areas is climate change and health. We have position statements on Climate Change and Health,[1] Environmentally Sustainable Healthcare[2] and the Health Benefits of Mitigating Climate Change.[3]

[1] Climate Change and Health Position Statement (2016) RACP. https://www.racp.edu.au/docs/default-source/advocacy-library/climate-change-and-health-position-statement.pdf?sfvrsn=5235361a_5
[2] Environmentally Sustainable Healthcare Position Statement (2016) RACP. https://www.racp.edu.au/docs/default-source/advocacy-l brary/environmentally-sustainable-healthcare-position-statement.pdf?sfvrsn=2834361a_4
[3] Health Benefits of Mitigating Climate Change Position Statement (2016) RACP. https://www.racp.edu.au/docs/default-source/advocacy-l brary/health-benefits-of-mitigating-climate-change-position-statement.pdf?sfvrsn=3d34361a_5

Reform of Australia's environmental laws must be guided by Indigenous knowledge and customs, and recognition of the strong connection of Aboriginal and Torres Strait Islander peoples to land and sea. Supporting the Uluru Statement From The Heart[4] must be central to this.

We urge that human health be incorporated into the process of reforming Australia's environmental laws, particularly in the context of increasing climate change impacts on health as well as the significant loss of biodiversity in Australia in recent years, exacerbated by the unprecedented 'Black Summer' bushfires in 2019-2020. There are many reasons to protect the environment, including for the longevity of the ecosystems and biodiversity in and of themselves. Human health is a core reason to protect the environment and environmental laws must be developed in ways that avoid harm to human health and bring about health benefits.

The health impacts of environmental degradation and disasters, and climate change disproportionately affect people experiencing social disadvantage.[5,6] Accordingly, it is necessary to protect the environment and mitigate climate change from a health equity lens.

The impacts of climate change are worsening over time and as a result children and young people will also suffer a disproportionate level of climate health impacts into the future. Further, health impacts of extreme weather events, air pollution and food insecurity can have a significant impact on early childhood development.[7] Urgent action is required to ensure to secure a healthy future for our children.

We commend the Review's Interim Report's recognition that the EPBC Act needs to be updated significantly, particularly given the increasing impact of climate change. We also support the Review's acknowledgement that Aboriginal and Torres Strait Islander knowledge needs to be meaningfully incorporated into the EPBC Act and that there needs to be stronger protections for Aboriginal and Torres Strait Islander cultural heritage.

We expand on these points along with recommendations on other areas relevant to our expertise and approach under the sections covered in the Interim Report. As a medical college our concern is the connection between the environment and health and the importance of a healthy environment for human health.

National level protection and conservation of the environment and iconic places

Human health is connected to and dependent upon the health of the environment. We rely on the environment for clean air and water, growing food, regulating pests, protecting against diseases, stabilising the climate, and for providing space for rest and relaxation.

Green spaces allow humans to enjoy nature and can bring positive mental health benefits.[8] They also provide space for physical activity, which has been connected with numerous

[4] Uluru Statement From The Heart (2017) https://ulurustatement.org/the-statement
[5] Climate Change and Health Position Statement (2016) RACP. https://www.racp.edu.au/docs/default-source/advocacy-library/climate-change-and-health-position-statement.pdf?sfvrsn=5235361a_5
[6] The economic cost of the social impact of natural disasters (2016) Deloitte Access Economics. http://australianbusinessroundtable.com.au/assets/documents/Report%20-%20Social%20costs/Report%20-%20The%20economic%20cost%20of%20the%20social%20impact%20of%20natural%20disasters.pdf
[7] Unless we act now – The impact of climate change on children (2015). United Nations Children's fund (UNICEF). https://www.unicef.org/publications/files/Unless_we_act_now_The_impact_of_climate_change_on_children.pdf
[8] Dean, J.H., Shanahan, D.F., Bush, R. Gaston, K.J., Lin, B.B., Barber, E., Franco, Lara. & Fuller, R.A. (2018). Is Nature Relatedness Associated with Better Mental and Physical Health? *International Journal of Environmental Research and Public Health,* 15(7), 1371. doi: 10.3390/ijerph15071371.

health benefits.[9] Further, good nutrition depends on biodiversity, such as bees, wasps, beetles and bats, which are essential pollinators and pest eradicators for horticulture.[10,11]

We support legally enforceable standards, such as the National Environmental Standards suggested by the Review, to protect the environment for itself and for the human health benefits it provides. Similarly, we support the goal of ecologically sustainable development with a focus on protecting, conserving and restoring the environment, both to protect ecosystems and biodiversity and to generate flow-on health benefits. Conversely, if the environment is not protected, this risks harm to health.

We acknowledge that the Interim Report notes the importance of a healthy environment for the quality of life, health, and wellbeing of Australians. However, to effectively support quality of life, the EPBC Act Review must provide stronger protections across a range of environmental mediators of health such as air, water and soil. We consider that the Review should put more emphasis on health in its final report to provide a foundation for strong environmental protection laws that address health impacts of proposals.

While the Review has received mixed feedback on expansion of the EPBC Act's coverage, we consider that from a health perspective, the Review provides an opportunity to develop and implement more consistent, enforceable and all-encompassing nationwide environmental protection standards that will in turn provide health benefits. Approvals should not be devolved to states without robust national standards.

Last year the RACP worked with a number of health and environmental organisations including the Lung Health Research Centre and the Thoracic Society of Australia and New Zealand to develop a joint expert position statement[12] in relation to the Proposed variation to the National Environment Protection (Ambient Air Quality) Measure standards for ozone (O_3), nitrogen dioxide (NO_2) and sulfur dioxide (SO_2).

The expert position statement outlines that "ambient air pollution contributes to over 3,000 premature deaths each year in Australia.[13] Even at low concentrations, nitrogen dioxide, sulfur dioxide and ozone are impacting the health of Australians.[14] Coal-fired power stations and motor vehicles are the main sources of sulfur dioxide and nitrogen dioxide respectively, in Australia."[15,16]

We call for the EPBC Act to cover nationwide health-based air pollution standards as part of the suggested National Environmental Standards.

Water and soil pollutants can also impact health by contaminating drinking water and food supply. This can lead to acute and chronic toxic effects on a range of organ systems in

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[9] Knight J. A. (2012). Physical inactivity: associated diseases and disorders. *Annals of clinical and laboratory science*, 42(3), 320–337.
[10] Ostiguy, N. (2011) Pests and Pollinators. Nature Education Knowledge 3(10):3.
[11] Importance of flying-foxes (2020). Queensland Government Department of Environment and Science. https://environment.des.qld.gov.au/wildlife/animals/living-with/bats/flying-foxes/importance
[12] Health-based standards for Australian regulated thresholds of nitrogen dioxide, sulfur dioxide and ozone Expert Position Statement (2019) https://www.racp.edu.au//docs/default-source/advocacy-l brary/c-noxso2o3_expert-position-statement_final.pdf?sfvrsn=76981c1a_10
[13] Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. (2016) University of Washington. http://vizhub.healthdata.org/gbd-compare
[14] Health-based standards for Australian regulated thresholds of nitrogen dioxide, sulfur dioxide and ozone Expert Position *Statement* (2019) https://www.racp.edu.au//docs/default-source/advocacy-l brary/c-noxso2o3_expert-position-statement_final.pdf?sfvrsn=76981c1a_10
[15] Nitrogen Dioxide Air Quality fact sheet (2005). Australian Federal Government Department of Agriculture, Water and the Environment. http://www.environment.gov.au/protection/ publications/factsheet-nitrogen-dioxide-no2
[16] Sulfur Dioxide Air Quality fact sheet (2005). Australian Federal Government Department of Agriculture, Water and the Environment. http://www.environment.gov.au/protection/publications/ factsheet-sulfurdioxide-so2

humans and other animals, including transgenerational effects, potentially through the mechanism of endocrine disruption.[17,18]

From a health perspective the Review's recommendation to narrow the EPBC Act's water trigger is concerning as national-level standards backed by the independent enforcement body could ensure adequate protection for water resources. Instead the water trigger needs to be utilised effectively in relation to coal seam gas and other coal mining developments and broadened to include all unconventional oil and gas development projects. Consumption and contamination of water, and salt produced by unconventional gas operations affect the environmental determinants of health.[19,20] We have previously called for all fossil fuel extraction projects to be required to undertake a health impact assessments.[21] This needs to include the health impacts of water loss and contamination.

Healthy forests surrounding catchment areas improve water quality. Land degradation, pollution, nutrient run-off and loss of biodiversity around waterways can have direct health consequences, for example, causing outbreaks of blue-green algae. The toxins produced by some species of blue-green algae have the potential to cause liver damage, gastroenteritis and skin irritation.

Biodiversity is a significant source of compounds for therapeutics and a significant proportion of human pharmaceuticals currently in use were originally derived from natural sources.[22,23] For example, the Great Barrier Reef which is dying due to climate change and other environmental threats, is home to cone snails, which have led to breakthroughs in neuroscience.[24] Ziconitide was developed based on cone snail venom and is used to treat chronic severe pain.[25] The marine world has become an important source of anticancer agents with novel mechanisms of action, with compounds derived from algae, sponges, tunicates and bryozoans.

Biodiversity remains an important resource for future medical research and development. Recent research found that of 136 species on the Great Barrier Reef found to be at elevated risk, only 23 of are listed as threatened under regional or national legislation.[26]

Healthy marine ecosystems also support human health through access to food and good nutrition, protection from natural hazards such as storms, along with climate stabilisation, physical recreation, and psychological, spiritual and cultural enrichment.

Accordingly, there is a health imperative for the EPBC Act to do more to protect both marine ecosystems and threatened species.

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[17] Gonsioroski, A., Mourikes, V. E., & Flaws, J. A. (2020). Endocrine Disruptors in Water and Their Effects on the Reproductive System. *International Journal of Molecular Sciences*, *21*(6), 1929. doi: 10.3390/ijms21061929
[18] Di Nisio, A., & Foresta, C. (2019). Water and soil pollution as determinant of water and food quality/contamination and its impact on male fertility. *Reproductive biology and endocrinology: RB&E*, *17*(1), 4. doi: 10.1186/s12958-018-0449-4
[19] Coram, A., Moss, J. & Blashki, G. (2014). Harms unknown: health uncertainties cast doubt on the role of unconventional gas in Australia's energy future. *Medical Journal of Australia,* 200(4): 210-213. doi 10.5694/mja13.11023
[20] Carey, M.G., Redmond, H. & Haswell, M.R. (2014). Harms unknown: health uncertainties cast doubt on the role of unconventional gas in Australia's energy future. *Medical Journal of Australia,* 200(9): 523-524. doi: 10.5694/mja14.00393
[21] Health Benefits of Mitigating Climate Change Position Statement (2016) RACP. https://www.racp.edu.au/docs/default-source/advocacy-l brary/health-benefits-of-mitigating-climate-change-position-statement.pdf?sfvrsn=3d34361a_5
[22] Chivian, E. & Bernstein, A. How our Health Depends on Biodiversity. (2010) Center for Health and the Global Environment, Harvard Medical School. https://www.cbd.int/doc/health/health-biodiversity-hms-en.pdf
[23] Naman, C.B., Leber, C.A. & Gerwick, W.H. (2017). Chapter 5 - Modern Natural Products Drug Discovery and Its Relevance to Biodiversity Conservation. In I. Kurtböke (Ed), *Microbial Resources* (pp.103-120). Academic Press.
[24] Gao, B., Peng, C., Yang, J., Yi, Y., Zhang, J., & Shi, Q. (2017). Cone Snails: A Big Store of Conotoxins for Novel Drug Discovery. *Toxins (Basel),* 2017 Dec; 9(12): 397. Doi: 10.3390/toxins9120397
[25] McGivern J. G. (2007). Ziconotide: a review of its pharmacology and use in the treatment of pain. *Neuropsychiatric disease and treatment*, *3*(1), 69–85. doi:10.2147/nedt.2007.3.1.69
[26] Richards, Z.T. & Day, J.C. (2018). Biodiversity of the Great Barrier Reef – how adequately is it protected? *PeerJ 6:e474.*; doi: 10.7717/peerj.4747

The spread of zoonoses to humans has been connected to human impact on the environment and is linked to how land is managed.

Most emerging infectious diseases are zoonotic in origin[27] and the diversity and number of emerging zoonotic diseases has been rising over time.[28] This increase is closely linked to intensifying human impact on natural systems as discussed in this UNEP Frontiers Report.[29] Almost half of past zoonotic diseases have been linked to deforestation and land use change.[30] This is because these activities displace wild animals and change their behaviour, bringing them into closer contact with humans and livestock.

Australia has seen the emergence of new zoonotic infections, including Hendra virus and bat lyssavirus, that were associated with the movement of bats and flying foxes from forested areas to urban areas due to widespread deforestation.[31] This leads to greater contact with livestock and humans and as was the case with Hendra virus, which was spread from bats to humans via horses.[32] It is likely that further diseases will emerge in response to increasing deforestation and urban encroachment onto natural areas.[33]

We call for the EPBC Act to be broadened to require strategic planning to protect environmental assets such as air, soil, water and wildlife habitats, with a direct focus on protecting human health.

Impact of climate change on the environment and human health

Climate change poses an imminent risk to biodiversity and our environment. As well as taking lives and impacting health the Black Summer bushfires caused large-scale ecological devastation. Over 10 million hectares were burnt[34] causing the loss of over a billion animals.[35] This loss of biodiversity means fewer trees to provide oxygen and regulate our water table, fewer insects for pollination and less biodiversity in the soil to keep it fertile for growing food. Climate change threatens the environment and as described above; human health depends on the health of the environment.

As we outline in our Climate Change and Health Position Statement,[36] health impacts of climate change are mediated by environmental exposures such as ambient heat, air

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[27] Taylor, L.H., Latham, S.M. and Woolhouse, M.E.J. (2001). Risk factors for human disease emergence. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 356, 983–989. doi: 10.1098/rstb.2001.0888

[28] UNEP Frontiers 2016 Report: Emerging Issues of Environmental Concern. United Nations Environment Programme. https://environmentlive.unep.org/media/docs/assessments/UNEP_Frontiers_2016_report_emerging_issues_of_environmental_concern.pdf

[29] Ibid.

[30] Loh, E.H., Zambrana-Torrelio, C., Olival K.J., Bogich, T.L., Johnson, C.K., Mazet, J.A.K., Karesh, W. & Daszak, P. (2015) Targeting Transmission Pathways for Emerging Zoonotic Disease Surveillance and Control. *Vector Borne and Zoonotic Diseases,* 15(7), 432-437. doi: 10.1089/vbz.2013.1563

[31] Jones, B.A., Grace, D., Kock, R., Alonso, S., Rushton, J., Said, M.Y., McKeever, D., Mutua, F., Young, J., McDermott, J. & Pfeiffer, D.U. (2013) Zoonosis emergence linked to agricultural intensification and environmental change. *PNAS USA* 110(21) 8399-8404. doi: 10.1073/pnas.1208059110

[32] Hendra virus Communicable Diseases Factsheet (2020). NSW Health. https://www.health.nsw.gov.au/Infectious/factsheets/Factsheets/hendra.pdf

[33] Jones, B.A., Grace, D., Kock, R., Alonso, S., Rushton, J., Said, M.Y., McKeever, D., Mutua, F., Young, J., McDermott, J. & Pfeiffer, D.U. (2013) Zoonosis emergence linked to agricultural intensification and environmental change. *PNAS USA* 110(21) 8399-8404. doi: 10.1073/pnas.1208059110

[34] Forest fire area data for the 2019–20 summer bushfire season in southern and eastern Australia (2020). Australian Government Department of Agriculture, Water and the Environment. https://www.agriculture.gov.au/abares/forestsaustralia/forest-data-maps-and-tools/fire-data#fire-area-and-area-of-forest-in-fire-area-by-jurisdiction

[35] Summer of Crisis (2020). Climate Council of Australia. https://www.climatecouncil.org.au/wp-content/uploads/2020/03/Crisis-Summer-Report-200311.pdf

[36] Climate Change and Health Position Statement (2016) RACP. https://www.racp.edu.au/docs/default-source/advocacy-library/climate-change-and-health-position-statement.pdf?sfvrsn=5235361a_5

pollution, storms, floods, drought, reduced water availability and water quality, reduced food production, increased food spoilage, and change in disease vectors.[37,38]

As the Interim Report recognises, the impact of climate change on the environment is increasing. We support national planning for climate change adaptation within the health sector and consider that similar planning will be required across all sectors. However, to prevent future harm to health from climate change, national climate change planning must also address mitigation as well as adaptation. Health risks from greenhouse gas emissions need to be integrated and addressed in government policies and legislation across all sectors. This should be supported by a national strategy on climate change and health and led by the Federal Government. We are one of many health organisations recommending a national strategy on climate change and health as a foundation for managing climate change mitigation and adaptation.

During the Black Summer bushfires 2019-20, we released two media statements[39,40] as well as one jointly with other health organisations,[41] calling for short and long-term strategies to deal with the public health emergency unfolding due to climate change in relation to bushfires. Bushfire smoke was responsible for an estimated 417 excess deaths in eastern Australia compared to the previous year, as well as 1,124 hospitalisations for cardiovascular issues, 2,027 for respiratory problems, and 1,305 emergency department presentations with asthma.[42]

The RACP made a submission to the Federal Government's *Royal Commission into National Natural Disaster Arrangements*[43] urging the Government to address health impacts in its review. We commend the development of the *Issues paper: Health arrangements in natural disasters*[44] following submissions from numerous health organisations including the Royal Australian College of General Practitioners and the Royal Australasian College of Surgeons. We responded to this issues paper and hope to see the health impacts of climate change integrated into national planning for natural disasters as well as action to mitigate climate change.[45]

We recognise the need to continue research into the best approaches to respond to the impacts of climate change on human health. We plan to work with other medical colleges on a research report into climate risks to Australian healthcare systems that will provide

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[37] Kjellstrom T, Weaver HJ. Climate change and health: impacts, vulnerability, adaptation and mitigation. NSW Public Health Bulletin 2009;20(1–2):5–9.
[38] Watts, N. et al. (2019). The 2019 report of The Lancet Countdown on health and climate change: ensuring that the health of a child born today is not defined by a changing climate. *The Lancet* 394(10211), 1836 – 1878. doi: 10.1016/S0140-6736(19)32596-6
[39] Physicians call on the NSW and Federal Governments to take action on climate public health emergency (2019). RACP. https://www.racp.edu.au/news-and-events/media-releases/physicians-call-on-the-nsw-and-federal-governments-take-action-on-climate-public-health-emergency/
[40] Physicians say bushfires are creating an unprecedented public health crisis (2020). RACP. https://www.racp.edu.au/news-and-events/media-releases/physicians-say-bushfires-are-creating-an-unprecedented-public-health-crisis
[41] The air pollution in NSW is a public health emergency (2019). Climate and Health Alliance. https://www.caha.org.au/air-pollution
[42] Arriagada, N.B., Palmer, A.J., Bowman, D.M.J.S., Morgan, G.G., Jalaludin, B.B., & Johnston, F.H. (2020) Unprecedented smoke-related health burden associated with the 2019–20 bushfires in eastern Australia. *Medical Journal of Australia*. doi: 10.5694/mja2.50545
[43] Royal Commission into National Natural Disaster Arrangements submission (2020) RACP. https://www.racp.edu.au//docs/default-source/advocacy-l brary/racp-submission-to-the-royal-commission-into-national-natural-disaster-arrangements.pdf?sfvrsn=784deb1a_4
[44] Issues Paper: Health arrangements in natural disasters (2020). Australian Federal Government Royal Commission into National Natural Disaster Arrangements. https://naturaldisaster.royalcommission.gov.au/system/files/2020-05/Issues%20Paper%20-%20Health%20Arrangements%20in%20Natural%20Disasters.pdf
[45] Royal Commission into National Natural Disaster Arrangements – Issues Paper – Health Arrangements in Natural Disasters submission (2020) RACP. https://www.racp.edu.au//docs/default-source/advocacy-library/racp-submission-to-the-royal-commission-into-national-natural-disaster-arrangements---issues-paper---health-arrangements-in-natural-disasters.pdf?sfvrsn=f2b7f11a_6

recommendations on how the sector can better adapt to and mitigate these risks and build resilience to climate impacts.

While preparedness and resilience are crucial to mitigate the health impacts of natural disasters, it is necessary to address the cause. The Intergovernmental Panel on Climate Change's (IPCC) Global Warming of 1.5 ºC Special Report, highlights the contribution of human activity to global warming and outlines the implications of 1.5 ºC and 2 ºC of warming. This includes risk of increasing intensity and frequency of other natural disasters such as drought and extreme heat events.[46]

While we cannot address the warming that has been locked in, we can prevent further exacerbation of climate change to mitigate worsening extreme weather events. This is important from a health perspective because as natural disasters intensify there will be more pressure on healthcare systems both in terms of acute need and flow-on demand from increased chronic physical and mental health conditions.

We support the Review's suggestion that proposals under the EPBC Act must transparently disclose the full emissions profile of each development. This must include full life-cycle emissions, apply to all proposals and be a key consideration in decisions relating to the EPBC Act. Preventing proposals that have high emissions profiles from going ahead is a climate change mitigation strategy that will protect human health.

We also note that disruption to natural ecosystems such as through land clearing and deforestation is generally associated with increased carbon emissions.

The EPBC Act Review's proposed reforms are a starting point but must go further to address climate change.

Indigenous culture and heritage

The RACP's Aboriginal and Torres Strait Islander Health Position recognises Aboriginal and Torres Strait Islander people's rights as Indigenous people and the need for self-determination to overcome the ongoing health impacts of colonisation and dispossession.[47]

We support the incorporation of Indigenous views and knowledge being required by law and an increase in protection mechanisms for Indigenous culture and heritage under the EPBC Act.

We commend the Review on seeking to further incorporate Indigenous knowledge through co-design and changes to the role of the Indigenous Advisory Committee. Given the ongoing colonisation and dispossession faced by Indigenous people, to genuinely put Indigenous knowledge on equal footing within current knowledge systems it must be actively and consistently prioritised.

The proposed Indigenous Knowledge and Engagement Committee should have the ability to directly advise the Environment Minister on all matters it considers within its remit, rather than going through the Science and Information Committee for matters that are outside the proposed National Environmental Standard for Indigenous engagement. This would demonstrate the value placed on Indigenous knowledge and would allow the EPBC Act process to benefit from being shaped by the guidance of Indigenous perspectives.

[46] Special Report - Global Warming of 1.5 ºC (2018) Intergovernmental Panel on Climate Change. https://www.ipcc.ch/sr15/
[47] Aboriginal and Torres Strait Islander Health Position Statement (2018). RACP. https://www.racp.edu.au/docs/default-source/advocacy-l brary/racp-2018-aboriginal-and-torres-strait-islander-health-position-statement.pdf?sfvrsn=cd5c151a_4

We acknowledge the holistic understanding and life course approach to health and wellbeing, and strong connection to the land and sea of Aboriginal and Torres Strait Islander communities.[48] Prioritisation of Indigenous knowledge should include valuing Indigenous health knowledge and being guided by this in relation to the connection between the environment, people and communities.

Trust in the EPBC Act

We support the Review's suggestion to improve community participation in decision-making processes. Community participation must be inclusive and accessible, allow time for busy people to participate and include involvement of health professionals to ensure that potential health impacts of proposals can be foreseen and planned for.

Similarly, decision-makers must have access to the best available health information, as well as the relevant environmental, cultural, social and economic information.

Transparency is a key element of our policy development process and we likewise support the Review's recommendations to improve transparency around the work and decisions covered by the EPBC Act.

Data, information and systems

We support the Review's recommendation to establish a central, accessible source of information relating to the EPBC Act, supported by standards that facilitate transparency and sharing.

We note the Review's acknowledgement that information is skewed towards 'western environmental science' and support the prioritisation and full integration of Indigenous knowledge into the EPBC Act, including Indigenous health knowledge.

We agree with the Review that the ability to model the environment is important and that this must include cumulative impacts and the impacts of climate change. It is important that such modelling extends to health impacts of projected environmental changes so they can be considered as part of decisions made under the EPBC Act. We support the Review overhauling existing information systems if it is deemed necessary for achieving this.

Monitoring, evaluation and reporting

We support the Review's suggestion for a coherent framework for monitoring and evaluation that aims for genuine monitoring to learn and improve from.

We would like to see a revamp of the national State of the Environment (SoE) reports as recommended by the Review, with a greater focus on health. The SoE reports already cover the health impacts of air pollution[49] however, as outlined above, it is not just air pollution that impacts health, but water and soil pollution and broader environmental changes such as climate change and deforestation. Accordingly, we call for health impacts to be embedded in the SoE reports.

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[48] Aboriginal and Torres Strait Islander Health Position Statement (2018). RACP. https://www.racp.edu.au/docs/default-source/advocacy-l brary/racp-2018-aboriginal-and-torres-strait-islander-health-position-statement.pdf?sfvrsn=cd5c151a_4

[49] For example - Health impacts of air pollution, Australia State of the Environment (2016). Commonwealth of Australia. https://soe.environment.gov.au/theme/ambient-air-quality/topic/2016/health-impacts-air-pollution

Another area that needs to be addressed and monitored to protect health is exposure to environmental chemicals. The United States Centers for Disease Control and Prevention's provides information on preventing exposure to environmental chemicals through monitoring exposure, particularly amongst vulnerable groups, establishing reference ranges and tracking the effectiveness of public health initiatives that aim to reduce exposure.[50] The EPBC Act has the potential to protect human health through closer monitoring of exposure to environmental chemicals.

We consider that any tool for tracking ecologically sustainable development should include health costs and savings as in the example in Box 20 of the Interim Report, which suggests including an estimated value on healthcare costs savings from health benefits gained by visitors to national parks. This must be applied consistently and in relation to all environmental assets and is likely to expand as our knowledge of this area increases.

Restoration

Given the connection between the environment and human health we consider protection and restoration of the environment to be paramount. Accordingly, we support a system that prioritises avoiding harm to the environment while recognising the need to restore and rehabilitate where there has been degradation. As the Review recognises, where developments that will impact the environment are approved, offsets must genuinely offset the impact of the development as the Review has recommended.

Compliance, enforcement and assurance

Environmental protection legislation can only be harnessed to bring about health benefits if it is enforceable and consistently enforced. Accordingly, we support the Review's recommendations to establish and utilise clear, transparent and consistent enforcement mechanisms, and to provide an independent regulator to give effect to the Act.

Health should be part of environmental law reform

The Review's current suggestions, while noting the impact of the environment on health need to go further to ensure protection of human health in the face of the challenges that we are already facing from climate change and environmental development.

The RACP urges a stronger focus on the connection between the environment and health and for health impacts of environmental development to be entrenched in law and enforceable.

Prioritising health and involving health professionals in legislating enforceable environmental protections can prevent further harm to health and promote the benefits of a healthy environment for Australians.

We call for human health to be central to environmental law reform because our health depends on a healthy environment.

We call for the institutions responsible for developing and delivering national environmental law to include health experts including public health, occupational and environmental health, infectious diseases and respiratory physicians.

[50] *Fourth National Report on Human Exposure to Environmental Chemicals Updated Tables, January 2019, Volume One* (2019) https://www.cdc.gov/exposurereport/pdf/FourthReport_UpdatedTables_Volume1_Jan2019-508.pdf

We are happy for our letter to be published on the Review's website.

Should you require any further information about this matter, please contact Ekta Sharma, Policy and Advocacy Officer on +61 2 9256 9679 or Ekta.Sharma@racp.edu.au.

Yours sincerely

Professor John Wilson AM