Dear Justice Pepper

The Independent Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Reservoirs in the Northern Territory

You kindly indicated to one of our members that the Inquiry was willing to receive further submissions until the final report is prepared in November.

Accordingly, we submit additional information sent in a letter to the Premier, a summary of health hazards supplementary to the earlier submission from Professor Melissa Haswell.

Yours sincerely

Dr David Shearman AM FRACP
Hon. Secretary, Doctors for the Environment Australia Inc.

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29 September 2017

Hon Michael Gunner MLA
Chief Minister of NT
GPO Box 3146
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Dear Mr Gunner,

The Independent Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Reservoirs in the Northern Territory

It is disappointing to see the Australian Prime Minister interfering with state and territory efforts to come to an evidence-based, community-supported resolution on such a critically important issue as the unconventional gas industry. We commend the scope and process taken by the NT Fracking Inquiry thus far and urge you to continue. The Inquiry’s efforts contrast sharply with views expressed by the Prime Minister, which are neither comprehensive nor appreciative of the complexities of environmental and human health risks involved. His views appear dismissive of the Territory’s efforts to make human health and wellbeing a priority in decision-making.

Many health and medical professionals, including members of Doctors for the Environment Australia, have submitted and presented extensive, referenced documentation, from hundreds of studies and expert commentary, to the NT Inquiry on Fracking.

Substantial evidence that this is not a benign industry has accumulated from places where unconventional gas mining has flourished1 - notably from the United States where now over 17 million people are living in close proximity to one or more hydraulically-fractured wells2.

Of particular importance to your jurisdiction is the urgent priority of closing the gap in life expectancy and quality for its Aboriginal citizens. No-one can deny that for remote communities, there is a long way to go to achieve even the most basic environmental qualities that will assist positive change. In the face of this, Doctors for the Environment Australia can see that a fracking industry in the NT would impact most significantly on communities living in remote areas, especially Aboriginal Territorians. Therefore, now is not the time to introduce an industry that is increasingly associated with multiple harms to human health, many of which Aboriginal Territorians already experience at disproportionate levels compared to their non-Indigenous counterparts.
Here are a few examples of harms attributable to the unconventional gas industry:

- **asthma exacerbations** and other **respiratory conditions**\(^2\). Note: Aboriginal hospitalisations for asthma are already two-fold higher; deaths exceed non-Indigenous deaths by threefold
- **hospitalisations** for heart, respiratory and neurological disorders\(^3\). Note: Aboriginal Territorians already have a 5.9 times higher hospitalisation rates than the rest of the country
- developmental disturbances, **reduced birth weight** and heightened risks to **infants and children to toxicological hazards**\(^4\). Note: Aboriginal communities already have lower birth weights and the highest infant mortality rate in the country
- increased **occupational hazards**, including occupational transport deaths and **silicosis**\(^5\). Note: Aboriginal Territorians already experience devastating, and costly, lung and kidney diseases
- **traffic accidents and diesel exhaust exposure**\(^6\). Note: NT’s rate already stands well above other jurisdictions in traffic fatalities and truck movements, and has heightened exposures to air-borne toxic particles in some regions
- **climate change impacts from mining and combusting methane** including heat waves, water and food insecurity\(^7\). Note: There is extensive evidence of NT’s current and future climate trends and the multiplicity of vulnerabilities facing remote Aboriginal communities
- **distress, division and conflict** within communities, with **loss of mental health and wellbeing**\(^8\). Note: Aboriginal people in the NT already have substantially higher rates of hospitalisation for mental health conditions and deaths from suicide.

These conditions already contribute both directly and indirectly to the NT’s markedly lower life expectancy, median age at death and higher mortality, compared to other Australian states. This underlying vulnerability, in the absence of a significant guarantee of strong positive, long-lasting offsetting benefits to affected communities and regions, point to a widening gap in health and wellbeing should the unconventional gas industry be allowed to proceed in the NT. The likelihood of an ongoing employment boom for local communities, which offsets these disadvantages, is questionable.

It is time for the Australian federal government to withdraw its misleading narrative about the minimal risks of unconventional gas mining, and to incorporate into its narrative the evidence provided to the NT Inquiry. Mantras of ‘protections enshrined in legislation’ and ‘regulation will prevent and fix everything’ are particularly doubtful in an industry that utilises extensive areas of land and substantial quantities of water, while producing huge quantities of hazardous waste\(^8\) and operating out-of-sight and out-of-mind in remote areas. Furthermore, this industry has demonstrated formidable power in influencing some governments to downgrade, or allow them to operate outside of, critical environmental safeguards that are necessary to protect human health.

Perhaps most pressing of all these issues is the enormity of challenges that the NT will face in a warmer world. Already some areas of the NT have experienced 1.5 to 2 degree warming, and the Bureau of Meteorology’s climate models (2007, 2013) project that the number of days over 35° C will increase from 15.7 days (average between 2000 and 2009) to as many as 227 days in 2070 unless we achieve rapid and aggressive reduction in emissions today\(^9\). Rapid transition away from coal and gas (which do not differ sufficiently to achieve the change we need\(^9\)) to the cleanest energy choices (solar and wind) offer the best chance for Darwin and the NT to remain liveable within a lifetime.
We urge the NT government to join the growing leadership on comprehensive ways to mitigate climate change. If this battle is lost, unchecked global warming will dramatically enhance the already high vulnerability of NT citizens to disasters and emergencies, heat-related illnesses, impaired mental health, and water-, vector- and food-borne diseases.

Transitions from fossil fuels to both small-scale community and large scale solar energy, combined with storage and transmission innovations, offer great health, environmental and climate benefits. These developments will also offer jobs and the potential for stability in electricity prices.

Mutually beneficial win-win situations, such as community and industrial solar initiatives, Caring for Country programs (which have a three-fold benefit over cost), local initiatives to improve house and community infrastructure, art and cultural initiatives and other safe and sustainable vibrant community development opportunities, require courage, communication and persistence. We urge NT leaders to embrace these ideas for reliable benefit to its people.

As doctors we urge the NT to stay on course, resist political pressure, and use evidence and community knowledge to define the best course of action for the health and wellbeing your citizens.

Yours sincerely,

Dr Melissa Haswell
Professor of Health Safety and Environment
School of Public Health and Social Work, Queensland University of Technology
Member, Doctors for the Environment Australia

Dr David Shearman AM
Emeritus Professor of Medicine, University of Adelaide
Hon Secretary, Doctors for the Environment Australia

Copy to the Hon Justice Rachel Pepper, Chair, Hydraulic Fracturing Taskforce
References

1 - Unconventional gas mining is not a benign industry:


2 - Asthma exacerbations are linked to shale gas mining and Aboriginal people experience substantially higher asthma and respiratory burdens:


3 – Hospitalisations


4 – Studies examining potential risks to infants and children


5 – Occupational Hazards

Australian Institute of Health and Welfare (2015). Numbers and rates of the leading causes of Aboriginal and Torres Strait Islander deaths and Indigenous: non-Indigenous rate ratios, NSW, Qld, WA, SA and the NT, 2013


6 - Road accidents and fatalities and exposure to diesel exhaust far from drilling operations


7 - Psychosocial stress and mental health


8 – Chemicals in fracking wastewater chemicals with potential impacts ranging from endocrine disruption, developmental toxicity to cancer


9 – Climate change contributions by unconventional gas mining and health impacts


