

OraTaiao: New Zealand Climate and Health (Inc.)

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OraTaiao submission to West Coast Regional Council and Buller District Council on the Mt William North Mining Project

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This submission is presented on behalf of **OraTaiao: New Zealand Climate & Health** www.orataiao.org.nz. OraTaiao comprises more than 140 senior doctors and other health professionals in New Zealand very concerned about the impact of climate change on health and health services.

1. This submission opposes the entire application.

2. OraTaiao: New Zealand Climate and Health contends that the proposal will adversely affect the environment in a way that is more than minor.

OraTaiao: New Zealand Climate and Health's specific concerns include:

- The effects of coal mining on greenhouse gas emissions leading to further **global climate change**, and therefore the downstream effects through climate change on human health and wellbeing, for both current and future generations
- Other degradation to the environment, including habitat loss, threats to biodiversity, soil loss and water contamination.

Of these concerns, this submission concentrates on that of climate change.

Other environmental effects will be important to the local West Coast environment and the health of West Coast people. These will include the serious implications of coal mining on the health of workers and other local people, including respiratory and other diseases from coal dust, and waterway contamination, and other environmental effects. But the mining and use of Mt William coal will have greater effects beyond the West Coast, contributing to global climate change that will directly and indirectly more profoundly impact West Coast communities as part of the World, which has to be considered.

Climate and health

OraTaiao: New Zealand Climate and Health www.orataiao.org.nz is part of a worldwide movement of health professional authorities urgently focusing on the health challenges of climate change. As senior doctors and health professionals, we are advocating on behalf of our patients and communities, in view of the fact that climate change has become a real, urgent and fundamental threat to the health and wellbeing of New Zealanders.

Climate change is widely recognised by world health authorities and leading medical journals to be the biggest global health threat of the 21st century.^{1 2 3} Major threats—both direct and indirect—to global health from climate change will occur through water and food insecurity, threats to shelter and human settlements, population displacement and migration, extreme climatic events, changing patterns of disease,¹ risks to security (e.g. war), and loss of economic potential.

Based on the need to limit global warming to 2°C by 2100, and taking into account our cumulative emissions and capacity to mitigate,⁴ New Zealand should very rapidly its greenhouse gas emissions by 2020.⁵ Further detail on these points can be found in OraTaiao's inaugural special article in the New Zealand Medical Journal of 1999⁵ and the NZMJ's accompanying lead editorial,⁶ which are attached as Attachments 1 and 2.

Detail on the vast health consequences from climate change to human health and survival is described in the major article in leading international medical journal The Lancet in 1999,¹ attached as Attachment 3.

New Zealand must commit to substantial decreases in its greenhouse gas emissions, to avoid the worst impacts of climate change on human health, both here and internationally. This requirement has major implications for coal mining in New Zealand.

Coal and climate change

Burning (and hence mining) coal is the most efficient and fastest way to bring about climate change, where carbon dioxide (CO₂) represents the major portion of climate changing greenhouse gases, and the burning of coal is the preeminent source of CO₂ emissions.

Any additional mining activity will increase greenhouse gas emissions, through the mining activity itself, the use of mined fossil fuels within New Zealand, and the use overseas of New Zealand's exported fossil fuels. Perversely, the expansion of fossil fuel extraction and combustion, coal included, directly counters New Zealand's efforts and need to rapidly reduce, not increase, its greenhouse gas emissions. The export of emissions via coal will impede, not help, global efforts to mitigate climate change.

Yet in 2010 the International Review⁷ of New Zealand's 5th National Communication (5NC)⁸ on NZ's climate change policies and measures has already considered NZ's response to climate change to be inadequate. The International Review noted NZ had no plan for 2/3rds+ of the emissions required to

¹ Costello A, Abbas M, Allen A, et al. Managing the health effects of climate change: Lancet and University College London Institute for Global Health Commission. Lancet 2009,373:1693–1733. [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(09\)60935-1/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)60935-1/fulltext)

² World Medical Association. WMA Declaration of Delhi on Health and Climate Change, <http://www.wma.net/en/30publications/10policies/c5/index.html>

³ Chan M. Climate change and health: preparing for unprecedented challenges. The 2007 David E. Barmes Global Health Lecture, Bethesda, Maryland, USA, 10 December 2007. www.who.int/dg/speeches/2007/20071211_maryland/en/index.html

⁴ Oxfam International. Hang Together or Separately? How global co-operation is key to a fair and adequate climate deal at Copenhagen. Briefing Paper 128, 2009. <http://www.oxfam.org/en/policy/fair-climate-deal-copenhagen>

⁵ Metcalfe S, Woodward A, Macmillan A, Baker M, Howden-Chapman P, Lindsay G, Hales S, Sinclair D, Jaine R, Springford L, Holmes A, Laking G, Jones R, Carr H, Edwards R, Shaw C, Wells S, Hosking J, Forde A, Bismark M, Palmer S, Keating G, Simpson J, Highton R, Dhar D, Kane P; New Zealand Climate and Health. Why New Zealand must rapidly halve its greenhouse gas emissions [Special Article]. N Z Med J. 2009 Oct 9;122(1304):72-95.

<http://journal.nzma.org.nz/journal/122-1304/3827/>

⁶ Montgomery H. Climate change: the health consequences of inactivity [editorial]. NZ Med J. 2009 Oct 9;122(1304):6-8.

<http://journal.nzma.org.nz/journal/122-1304/3817/>

⁷ United Nations Framework Convention on Climate Change (UNFCCC). Report of the in-depth review of the fifth national communication of New Zealand. FCCC/IDR.5/NZL. February 2011. <http://unfccc.int/resource/docs/2011/idr/nzl05.pdf> page 35 paragraphs 157-158.

⁸ Ministry for the Environment. New Zealand's Fifth National Communication under the United Nations Framework Convention on Climate Change, Wellington: Ministry for the Environment, 2009. <http://www.mfe.govt.nz/publications/climate/nz-fifth-national-communication/>

meet NZ's reduction target for 2020, and had great concern whether NZ would do this on time.^{7 9 10} These concerns were raised even though NZ's 5NC did not signal increases in CO2 emissions from large-scale coal expansion, oil and Southland lignite extraction

Economics

In terms of the supposed net economic benefits to the West Coast from mining, we consider that the long term costs of coal will seriously outweigh any short term economic benefits. This is where the short-term economic costs of mitigation (which include forgone financial benefits through not actively increasing the mining, burning and export of coal) have been widely overstated in public debate, and at the same time that the true wider costs have been badly understated.⁵ Details are available in the NZMJ special article⁵ (Attachment 1).

Short-term costs and benefits forgone have to be balanced by the far greater costs to society caused by inertia with rampant climate change, let alone the substantial health and social benefits that can be achieved by a low emissions society. These factors must be included in economic analyses, beyond just local environmental effects on local biodiversity; otherwise such analysis is misleading through omission.

Comprehensive international analyses such as the United Kingdom (UK)'s 2007 Stern review¹¹ and Australia's Garnaut review¹² point to probable economic gains by moving quickly on emissions reductions. Conversely they and others like The World Bank¹³ indicate the greater economic damage long-term from inaction. As described by Lord Stern, the costs of taking action to stabilise the climate will be high but much less than the costs of inaction.¹¹ Any, worryingly, subsequent analysis suggests that past important costings of adapting to climate change, used to drive global policy, have been at least 2-3 times too low.¹⁴

These costs are aside from the very considerable downstream costs of coal itself– its extraction, transport, processing, and combustion – where, according to research by the Harvard Medical School, these externalities accumulate to generate multiple hazards and huge costs to health and the environment¹⁵ (Attachment 4).

The International Energy Agency (IEA) last year stated that if fossil fuel infrastructure is not rapidly changed, the world will lose for ever the chance to avoid dangerous climate change. It observed that as yet there are few signs that the urgently needed change in direction in global energy trends is underway, and warned that we cannot afford to delay further action to tackle climate change. The IEA also stated that delaying action is a false economy: for every \$1 of investment avoided in the power sector before 2020 an additional \$4.3 would need to be spent after 2020 to compensate for the increased emissions.^{16 17}

⁹ Fallow B. UN finds NZ credibility gap on emissions. NZ Herald, 19 April 2011.

http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10720250

¹⁰ NZ's Climate Response Officially Inadequate – UN. Sustainability Council of NZ, 19 April 2011.

<http://www.sustainabilitynz.org/docs/NZsClimateResponseOfficiallyInadequate.pdf>

¹¹ Stern N. The economics of climate change: the Stern review. Cambridge: Cambridge University Press, 2007. http://www.hm-treasury.gov.uk/stern_review_report.htm

¹² Garnaut, R. The Garnaut climate change review, final report. Melbourne: Cambridge University Press, 2009. <http://www.garnautreview.org.au/index.htm>

¹³ World Development Report 2010: development and climate change. Washington DC: The International Bank for Reconstruction and Development / The World Bank, 2009. <http://www.worldbank.org/wdr2010>.

http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:22312494~pagePK:64257043~piPK:437376~theSitePK:4607_00.html

¹⁴ Parry M, Arnell N, Berry P, et al. Assessing the costs of adaptation to climate change: a critique of the UNFCCC estimates. London: International Institute for Environment and Development (IIED), Imperial College, 2009. <http://www.iied.org/pubs/pdfs/11501IIED.pdf>,

¹⁵ Epstein PR, Buonocore JJ, Eckerle K, Hendryx M et al. Full cost accounting for the life cycle of coal. Ann NY Acad Sci. 2011;1219(1):73-98.

<http://mlui.org/downloads/CoalExternalitiesHarvard02-17-11.pdf>

¹⁶ Harvey F. World headed for irreversible climate change in five years, IEA warns. The Guardian, 9 November 2011.

<http://www.guardian.co.uk/environment/2011/nov/09/fossil-fuel-infrastructure-climate-change>

¹⁷ World Energy Outlook, Executive summary. International Energy Agency, 2011. http://www.iea.org/weo/docs/weo2011/executive_summary.pdf

The need for such additional investments worldwide will impact on the West Coast population just as with the rest of the world's economies.

Other material

Further information on the detrimental health impacts of coal, including climate change, can be seen in the influential US Physicians for Social Responsibility's major medical report 'Coal's Assault on Human Health'¹⁸ on the impacts of coal on the human body – especially harming the respiratory, cardiovascular and nervous systems, and contributing to global warming that impacts human health and survival. We attach this for your information (Attachment 5).

Close to home, the Medical Journal of Australia has recently also published on the health effects of coal mining and coal specifically, including climate change (Attachment 6).¹⁹

OraTaiao members have also published opinion-editorials in major daily newspapers, explaining the harms of New Zealand's dependence on fossil fuels,²⁰ and the particular health effects of coal especially with climate change.²¹ We attach these for your information (Attachments 7 and 8).

We finally attach the Synthesis Report Summary for Policymakers of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (2007),²² which is the authoritative summary to date of the science and the need for urgent action on climate change (Attachment 9). This background is essential to considering the need to reduce the combustion of coal.

3. OraTaiao: New Zealand Climate and Health seeks the following decision from the consent authority:

Decline the application in its entirety.

4. OraTaiao: New Zealand Climate and Health wishes to be heard in support of this submission.

Further, to reduce costs, greenhouse gas emissions and make access feasible to all parties, we ask to present our evidence by teleconference or Skype videoconferencing, and for the District Council and Regional Council consent hearing be heard together.

¹⁸ Lockwood A, Welker-Hood K, Rauch M, Gottlieb B. Coal's assault on human health: a report from physicians for social responsibility. Physicians for Social Responsibility, 2009. <http://www.psr.org/resources/coal-assault-on-human-health.html>, <http://www.psr.org/assets/pdfs/psr-coal-fullreport.pdf>

¹⁹ Castleden WM, Shearman D, Crisp G, Finch P. The mining and burning of coal: effects on health and the environment. Med J Aust. 2011 Sep 19;195(6):333-5. <https://www.mja.com.au/journal/2011/195/6/mining-and-burning-coal-effects-health-and-environment>

²⁰ Laking G. For our health we must end fossil fuel dependency. The Dominion Post, 17 June 2011. <http://www.orataiao.org.nz/file/view/G+Laking+op-ed+DomPost17June2011.doc>, <http://tinyurl.com/3drz493>

²¹ Tregonning R. Mining adds to coal's record of health risks. The Dominion Post, 27 January 2012. <http://www.stuff.co.nz/dominion-post/comment/6322647/Mining-adds-to-coals-record-of-health-risks>

²² Pachauri RK, Reisinger A (Eds.). Synthesis Report Summary for Policymakers. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change: IPCC, Geneva, Switzerland, 2007. http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf

Yours sincerely,



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Attachments

Climate and Health

1. Metcalfe S, Woodward A, Macmillan A, et al; New Zealand Climate and Health. Why New Zealand must rapidly halve its greenhouse gas emissions [Special Article]. NZ Med J. 2009 Oct 9;122(1304):72-95. <http://www.nzma.org.nz/journal/122-1304/3827/>
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OraTaiao: New Zealand Climate and Health re fossil fuels and coal mining

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