

**Ministry for the
Environment's Improving
Aotearoa New Zealand's
environmental reporting
system consultation**

*Te whakawhanake i te pūnaha
ripoata taiao o Aotearoa*

***Proposed amendments to the Environmental
Reporting Act 2015***

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Submitter details

1. Nelson Marlborough Health (Nelson Marlborough District Health Board) (NMH) is a key organisation involved in the health and wellbeing of the people within Te Tau Ihu o Te Waka a Maui. NMH appreciates the opportunity to comment from a public health perspective on the Ministry for the Environment's Proposed amendments to the Environmental Reporting Act 2015
2. NMH makes this submission in recognition of its responsibilities to improve, promote and protect the health of people and communities under the New Zealand Public Health and Disability Act 2000 and the Health Act 1956.

General Comments

3. NMH supports the Ministry's desire to improve Aotearoa New Zealand's environmental reporting system creating a robust evidence-based national environmental reporting system which better reflects Māori data sovereignty.
4. NMH supports the intention of the proposal to give a stronger voice to Te Tiriti o Waitangi, te ao Māori and mātauranga Māori. It is important that Māori aspirations and values are included to ensure that the indigenous relationship to the environment is acknowledged and the connection of people's wellbeing to environmental wellbeing is affirmed.

The opportunities and objectives

5. *Q2. Which of these issues are the most important to fix? Why?*

NMH considers Issue 2 (*New Zealand does not have a fit-for-purpose designed national environmental reporting system*) and Issue 4 (*Under-recognition of the Crown's Tiriti responsibilities, te ao Māori, and mātauranga Māori*) as the most important issues to address.

In regards to Issue 2: NMH agrees that the current reporting system does not acknowledge the complexity of the environment, how it affects wellbeing and impacts of anthropogenic influence on the environment. This could be resolved by introducing more environmental health indicators such as those related to air quality and health impacts¹. This type of reporting approach gives us a better

¹ Environmental Health Intelligence New Zealand (EHINZ). (n.d.). Health effects of air pollution. Massey University.
<https://www.ehinz.ac.nz/indicators/air-quality/health-effects-of-air-pollution/>

understanding of what environmental indicators mean in terms of the impacts on our health and wellbeing.

For Issue 4 NMH strongly agrees that te ao Māori (Māori world view) should be adopted in the environmental reporting as this holistic approach comes from the interconnectivity concept². Moreover, the use of quantitative approaches in environmental data collection may limit the scope of our knowledge of Māori perspectives on the environment. In some situations where no quantitative data is available, or quantitative research is not suitable, qualitative data (such as oral histories³) should be included for reporting. Qualitative methods have been used in community environmental health research to produce 'community narratives' as individuals are given voice to 'characterise the community in full and complex fashion' ⁴.

Proposal 3: Add drivers and outlooks to the reporting framework

6. Q15. Do you agree with the proposal to add drivers and/or outlooks to the reporting framework? Please give reasons.

Yes.

The complete DPSIR framework (Driver-Pressure-State-Impact-Response) developed by the OECD 'provides a structure within which to present the indicators needed to enable feedback to policy makers on environmental quality and the resulting impact of the political choices made, or to be made in the future' ⁵. However, there have been discrepancies and inconsistencies in its definition and application across many organisations around the world⁶. For New Zealand's environmental reporting so far, generally only the PSI (pressure-state-impact) has been applied which has resulted in an incomplete picture of the state of the environment. NMH therefore agrees with the proposal to include the Driver component (and/or outlooks or trends) to this reporting framework as driving forces and consequences need to be understood as well as how effectively the environment is managed. Then the response (R) component can be recommended

² Mika, J.P. (2021). *Māori perspectives on the environment and wellbeing*.

<https://www.pce.parliament.nz/media/197165/mika-m%C4%81ori-perspectives-on-the-environment-and-wellbeing-pdf-21mb.pdf>

³ Houghton, A. (2013). *Developing climate change environmental public health indicators: Guidance for local health departments*. Council of State and Territorial Epidemiologists (CSTE). <https://stacks.cdc.gov/view/cdc/23438>

⁴ Brown, P. (2003). Qualitative methods in environmental health research. *Environ Health Perspect*, 11(14), 1789–1798. <https://doi.org/10.1289/ehp.6196>

⁵ Food and Agriculture Organisation (FAO). (2022). Driver-Pressure-State-Impact-Response framework (DPSIR). <https://www.fao.org/land-water/land/land-governance/land-resources-planning-toolbox/category/details/en/c/1026561/>

⁶ Gari, S.R., Newton, A., Icely, J.D. (2015). A review of the application and evolution of the DPSIR framework with an emphasis on coastal social-ecological systems. *Ocean & Coastal Management*, 103(2015), 63-77.

to Government to act on or propose appropriate policies and action plans to solve specific environmental problems.

7. Q16. *What benefits or drawbacks do you see in including drivers or outlooks?*

See Q15.

8. Q18. *What drivers and outlooks can be included to reflect the perspective of te ao Māori?*

Kaitiakitanga can be defined as people having a reciprocal care⁷ for the land by looking after it and everything associated with it being *taonga* (treasure or important) to their wellbeing. Consideration should be given to integrating this concept into the reporting framework. *Kaitiakitanga* is evident in many Māori organisations' efforts in environmental sustainability and conservation projects around Aotearoa. In Whakatu (Nelson), there have been successful Māori-led projects such as those of Tiakina Te Taiao Limited⁸ and Ngāti Tama ki Te Waipounamu Trust⁹.

To include this perspective, the outlooks based on integrated environmental assessments should include indicators that cover freshwater, groundwater, marine and terrestrial environments. These may include *wai* (water) quality trends, *ngahere* (forest) biodiversity and pests (freshwater, marine and terrestrial). Furthermore, as the main causes of environmental degradation, the drivers should be included in the State of Environment reports. These should include major sectors such as industry, agriculture, tourism, fisheries, forestry and urban development as well as climate change.

Proposal 5: Mandate a standing advisory panel

9. Q25. *Do you foresee any problems with the proposal to make it a statutory requirement to establish a standing advisory panel under the ERA? Please describe.*

No.

10. Q26. *What range of perspectives do you think the standing advisory panel needs to include?*

To better understand and communicate the impacts of environmental degradation, the range of perspectives should include aspects of both public health and environmental economics. For example, these should include efforts to estimate

⁷ Maxwell, K.H., Ratana, K., Davies, K.K., Taiapa, C., Shaun, A. (2020). Navigating towards marine co-management with indigenous communities on-board the Waka-Taurau. *Marine Policy*, 111(Jan 2020), 103722.

⁸ <https://tiakina.co.nz/projects>

⁹ <https://ngatitama.nz/te-taiao/>

the true costs of environmental damage to public health and the economy¹⁰ or the impacts of climate change on human health¹¹. Public Health's purpose¹² is to *protect against community health risks and threats, prevent illness, promote health and wellbeing across the whole population*. This purpose aligns with the objectives of this strategy to have a clear purpose for environmental reporting that drives a focus on key issues and the desired outcomes which include creating a holistic approach that covers wellbeing. Therefore NMH would like to see more explicit recognition of public health's role in environmental monitoring

Proposal 7: Reduce the frequency of synthesis reports to six-yearly

11. Q33. *Is six-yearly reporting an appropriate interval for synthesis reports? Which timeframe do you prefer, and why?*

NMH understands that the current reporting schedule is time and resource consuming and ineffective in term of data sufficiency to best illustrate changes over time. As long as there is an annual commentary report, six-yearly full state of environment (SoE) reporting should be more efficient as long as each synthesis report is comprehensive and more specific to each region, and illustrates the connectivity across environmental domains in depth. NMH notes that many OECD countries have adopted a five-yearly reporting cycle rather than six. Consideration should be given to aligning with the international reporting cycles. More emphasis should be placed upon data collection and especially those measures which are related to human health as it is important that the impacts of environmental degradation on public health are well-understood. This environmental health aspect has not been well-documented in previous reports.

Proposal 9: Establish a set of core environmental indicators

12. Q38. *Do you foresee any problems with the proposal to establish a set of core environmental indicators? Please describe.*

No.

13. Q39. *What are some pros and cons of publishing updates to environmental indicators outside the reporting cycle?*

¹⁰ Remoundon, K. & Koundori, P. (2009). Environmental Effects on Public Health: An Economic Perspective. *Intl J Environ Res Public Health*, 2009(6). 2160-2178. doi:[10.3390/ijerph6082160](https://doi.org/10.3390/ijerph6082160)

¹¹ Royal Society Te Apārangi. (2017). Human health impacts of climate change for New Zealand: Evidence Summary. <https://www.royalsociety.org.nz/assets/documents/Report-Human-Health-Impacts-of-Climate-Change-for-New-Zealand-Oct-2017.pdf>

¹² [About public health | Ministry of Health NZ](#)

Additional reporting of indicators is important to consider specific significant events such as major forest fires¹³ or marine pollution spills from shipping accidents¹⁴. The impacts of such incidents on the environment, biodiversity and health may be substantial and need to be assessed and reported.

14. Q40. Should the indicators include topics based on te ao Māori and mātauranga Māori?

See Q18. NMH would also like to stress the fact that environmental health indicators have not yet been well developed for Aotearoa. Statistics New Zealand has produced data summaries of a range of environmental indicators¹³, however, there were only two that illustrate an environment-human health connection. These are the Health Impacts of PM₁₀ (2016) and the Occurrence of Food- and Water-borne diseases (2016). There is a need to draw a connection between the impacts of pollution and climate change on human health and its potential effects on vulnerable communities such as the elderly, Māori or Pasifika. The Royal Society Te Apārangi (2017) stated that climate change increases the risk of some mosquito-borne and tick-borne communicable diseases (such as West Nile virus, dengue fever, and Japanese encephalitis¹⁵) emerging in New Zealand.

Proposal 10: Strengthen the mechanisms for collecting data

15. Q42. Do you foresee any problems with the proposal to include provisions in the ERA to require data for national environmental reporting? Please describe.

The Government should include data provisions in the Environmental Reporting Act (ERA) so that work on data collection is not replicated unnecessarily. Like other developed countries, New Zealand does not have a shortage of data in many areas, but there may be a need to invest in better standardisation of data collection methods (and its coordinated compilation) among government agencies, research institutes and the private sector to facilitate a comprehensive data analysis. This will require the development of a system of data sharing among these stakeholders.

16. Q43. How can we strengthen the way we collect data to reflect the perspective and values of te ao Māori?

See Q2.

¹³ Quackenbush, C. (2019, 11 February). New Zealand is battling its worst forest fire in more than 60 years. *Time*. <https://time.com/5526501/new-zealand-pigeon-valley-fire-nelson/>

¹⁴ BBC News. (2011, 11 October). Oil spill disaster: New Zealand's 'worst in decades'. <https://www.bbc.com/news/world-asia-pacific-15251319>

¹⁵ Statistics New Zealand (n.d.). Environmental indicators. <https://www.stats.govt.nz/tools/environmental-indicators>

17.Q44. In your view, have we overlooked any costs, benefits, risks or opportunities?
Please describe these and any mitigations.

It is important that the Science Advisory Panel maintains a substantial multi-disciplinary team of analysts that are capable of turning data into meaningful information. As already mentioned, New Zealand is not always short of data but more effort should be made in coordinating data for analysis and interpretation for State of Environment reporting. Prof. Barry Borman (Environmental Health Intelligence New Zealand) stated that:

Across the globe there is a common belief that faster computers and better software will result in more information, but analysts are best at making sense of, and understanding the implications and meanings of data. The machines can crunch the numbers, but they can't translate them or assess them in a broader social, economic and policy context¹⁶.

Resources should be allocated to:

- i. standardisation of data collection methods;
- ii. compilation and interpretation of data that have been collected by different agencies across the country;
- iii. maintaining a team of data analysts covering key environmental and health indicators.

Conclusion

18.NMH thanks the Ministry for the Environment for the opportunity to comment on *Improving Aotearoa New Zealand's environmental reporting system consultation*

Yours sincerely



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¹⁶ Borman, B. (2018). *Opinion: Prof. Barry Borman – Data deluge needs human analytical filter*. Health Central.
<https://healthcentral.nz/opinion-professor-barry-borman-data-deluge-needs-human-analytical-filter/>