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A Circular Economy for the
Wellbeing of New Zealand



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

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Emissions Reduction Plan Consultation
Ministry for the Environment
PO Box 10362
Wellington 6143

Submission on the Emissions Reduction Plan Consultation

by

Āmiomio Aotearoa
Waikato Research Leadership Team

This submission is made by the Waikato Leadership Team of the research project “Āmiomio Aotearoa: A Circular Economy for the Wellbeing of New Zealand” hosted by the University of Waikato.

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This submission is made by the research project’s Waikato Leadership Team, which comprises: Professor Kim Pickering, Professor Barry Barton, Associate Professor Eva Collins, Associate Professor Sandy Morrison, Professor Les Oxley, and Associate Professor Tom Roa. The views expressed are those of the Leadership team, who do not purport to speak on behalf of all members of the research team, or of the University of Waikato, or of the other organizations participating in the research.

Background

“Āmiomio Aotearoa: A Circular Economy for the Wellbeing of New Zealand” is a research project funded by MBIE, hosted by the University of Waikato but including researchers at a number of other universities, CRIs and other organizations. It is the

project referred to at page 50 of the Consultation document. It is multi-disciplinary in scope and addresses the largely unexplored economic, societal and cultural aspects to provide evidence for, and support, Aotearoa New Zealand's transition to a circular economy.

This submission is only on the section "Moving Aotearoa to a circular economy" at page 48 of the Consultation document. However generally we endorse the proposals for an Emissions Reduction Plan that will rapidly reduce greenhouse gas (GHG) emissions.

Circular Economy in relation to Climate Change

We strongly endorse the insight and the policy intention that circular economy principles are essential to the reduction of GHG emissions. As the Consultation document points out, a large proportion of our GHG emissions are due to our production and use of materials and our management of land. Many products have high levels of embodied carbon, and New Zealand does not have any system of border carbon adjustments to reduce those levels or protect local manufacturers whose products are more climate-friendly. Covid-19 has also demonstrated the importance of strength and resilience in supply chains, and the benefits of local supply. Local recycling has similar benefits in shortening supply chains. Bringing materials use into our planning to reduce emissions is therefore vital, even if it introduces complexity. There are many co-benefits as well, touched on by the Consultation document.

We urge a conceptualization of the circular economy that is informed by tikanga Māori and mātauranga Māori. The Māori world view has many aspects that are comparable to the concept of the circular economy but it is important to develop a form of circular economy thinking that is indigenous to Aotearoa New Zealand and not simply imported from elsewhere.

Circular Economy Strategy

We agree that a Circular Economy Strategy must be put in place in order to support the Emissions Reduction Plan.

We agree that the Strategy must be integrative, and point out that it must be inclusive; it must include iwi and community groups, SMEs and other businesses. The Strategy will be challenging but it is necessary. It must include elements of economic and industrial strategy as well as climate change and environmental policy. As a policy matter, circularity is very dispersed, but that should not deter the government from moving forward; indeed real progress will be difficult without inclusiveness.

The main point we wish to make about the Circular Economy Strategy is that it must be all-of-government in its character. It cannot be confined as a concern of one ministry such as the Ministry for the Environment, because circularity is so all-embracing. It must be a Strategy that is agreed on, and has substantial implications for, many parts of government. We particularly identify ministries and agencies responsible for economic policy as being included, for example Treasury, MBIE, Worksafe NZ, and Building System Performance.

The Strategy must guide economic policy and planning, economic development, Industry Transformation Plans, and investment activities such as those of NZ Growth Capital Partners. Consistency with circular economy principles should be a key criterion for government support, funding, or investment of any kind.

Circularity principles must run deep into the economy and society, well beyond questions of recycling and products. Infrastructure is an example that is particularly relevant in the public sector; buildings, roads, water supply, drainage, and sewerage. Infrastructure must be designed with a view to life-cycle emissions, readiness ease of maintenance and renovation, and avoidance of unnecessary consumption.

Early Measures

We submit that there are a number of early measures that can be taken to promote circularity for GHG emission reduction purposes. We are pleased to see a number of them identified in the Consultation document as under way already, such as the Waste Strategy and the reform of the Waste Minimisation Act.

- We submit that product stewardship should become the norm rather than the exception, whether driven by government action or by business imperatives.
- The shift towards electrification in transport and industry must be accompanied by vigorous stewardship programs for batteries and electronic waste, in order to maintain credibility nationally and internationally.
- “Right to repair” legislation should be introduced to minimize planned obsolescence and to reduce the obstacles to keeping products in serviceable condition.
- Prohibition of sending certain products to landfill (eg electronic waste, batteries, compostable organic material) with widespread provision of alternative disposal pathways. A regenerative and circular approach directs us to reduce the amount of organic material going to landfill, or eliminate it, rather than relying solely on methane capture systems.
- Biofuels should receive active promotion through one policy measure or another (biofuel mandate, subsidy, etc) not only for GHG emission reduction but also for reducing dependence on oil products which are subject to volatile commodity prices and currency fluctuations.
- Funding mechanisms should support the many small-scale niche innovators in circularity in New Zealand small and medium enterprises (SMEs) and avoid mechanisms that are only available to large corporations. Circularity innovators are pioneers exploring new niches in products and in services such as sharing and zero packaging.

Research Needs

We agree that a great deal of science and innovation investment is required. We particularly identify research into:

- Baseline information such as into the circularity gap (as identified in the Consultation document) in order to guide the systematic development of objectives, targets, and policies.

- Materials flows – understanding which ones are important to emissions, the biosphere, and human health. The field is complex and almost unexplored. Better information will inform policy makers decisions about what materials issues are the most important.
- Life-cycle analysis of products, materials and services, in order to understand the full spectrum of emissions. What is needed is analysis that is not subject to undue influence from special interests, and that is suitably designed to drive real progress.
- Socio-economic transition – understanding and influencing practices through the community and commercial world for the better.

Thank you for considering our submissions in this consultation process.

Yours faithfully

Kim Pickering
Professor