MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI

New Zealand Example

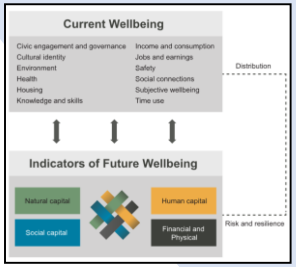
The re-emergence of natural capital accounting in New Zealand – why now, why that and why we must continue

Joey Au– Principal Policy Advisor

Outline

- **Context:** My natural capital journey as a policy advisor
- **Framework:** The data, policy, government and outcomes link
- **Overview:** New Zealand's Natural Capital journey
- **Step 1:** Supply driven - Natural Capital Data (SEEA)
- **Step 2:** Demand driven (bottom up) - Investment Statement, CBAx
- **Step 3:** Demand driven (top down) – new NZ Government.

About me: My natural capital journey as a policy advisor



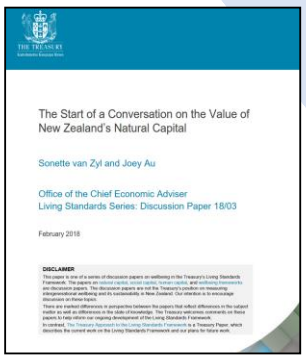
WELLBEING

[broader than natural capital]

NZ Treasury

Senior Advisor to the Chief Economist

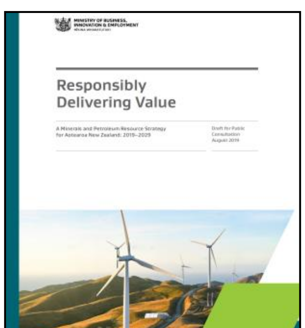
[previous]



NATURAL CAPITAL

NZ Treasury

[previous]



PETROLEUM AND MINERALS

[one component of natural capital]

Ministry of Business, Innovation and Employment

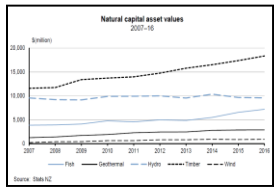
Principal Policy Advisor

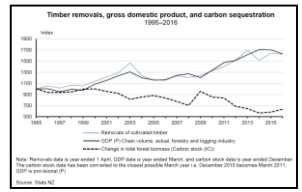
[current]

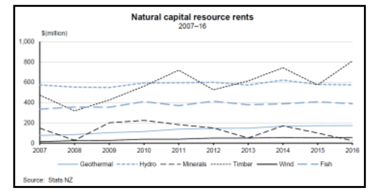
The data, policy, government and outcomes link

1. DATA

e.g. Indicators and Natural Capital Accounts



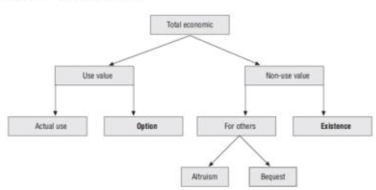




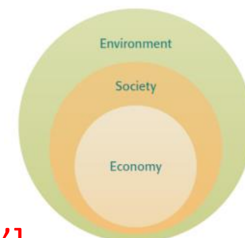
2. POLICY ANLYSIS & ADVICE

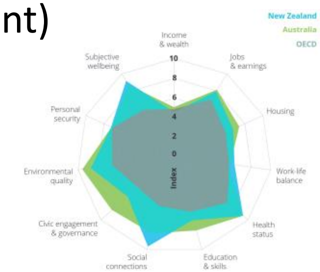
e.g. Frameworks (policy and measurement)

Figure 5 – TEV Framework



Source: OECD (2006).





['Micro'] individual policy

['Macro'] Priorities

The realm of a policy advisor

3. GOVERNMENT DECISION

Causality is always difficult to determine

4. OUTCOMES

Natural Capital Accounting (SEEA) in New Zealand

Stats NZ
Tatauranga Aotearoa

TE TAI ŌHANGA
THE TREASURY

Ministry for the Environment
Manatū Mō Te Taiao

Department of Conservation
Te Papa Atawhai

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1 Started as supply driven…

2 …then demand driven albeit bottom up…

3 …now also includes top down demand.

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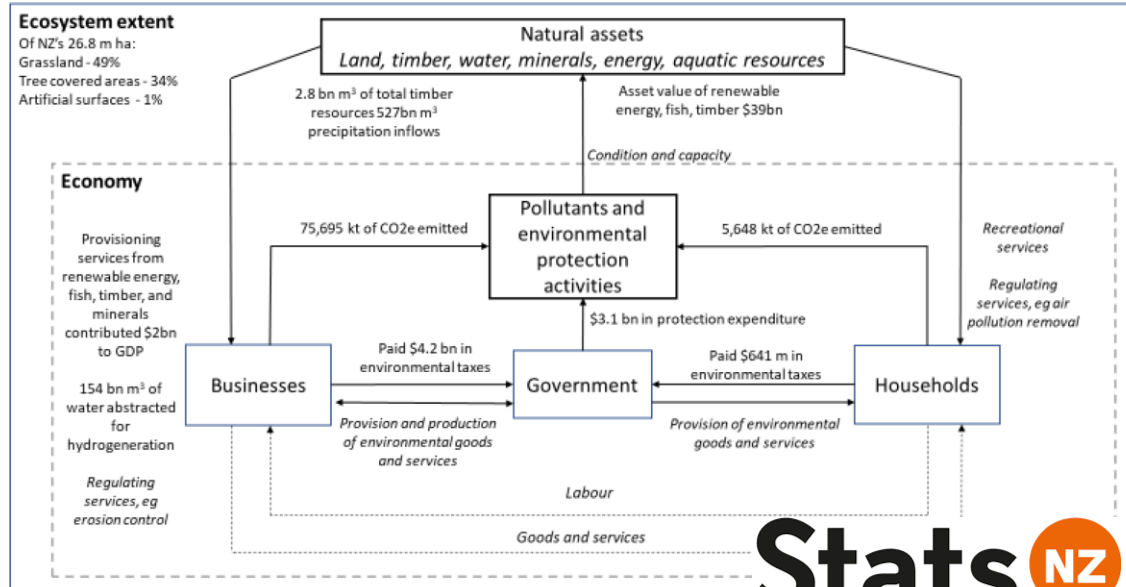
Supply driven – Natural Capital Accounts (SEEA)

- In 2001 NZ was the only OECD country that had yet to compile a suite of environmental accounts.
- From 2001 to 2005, Stats NZ created the natural resource accounts (partial only) based on the SEEA framework.
- From 2001 to 2011 Stats NZ produced 18 publications on environmental accounting covering energy, environmental protection expenditure, forestry, fish, the marine economy, minerals, and water.



Data are for the latest available year: monetary data (2016), emissions (2015), water stocks (2014), land cover (2012)

Stats NZ Tatauranga Aotearoa

*Source: **Developments in Environmental-Economic Accounting ,** Adam Tipper, Stats NZ*

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The Treasury's Living Standards Framework

To help us achieve our vision of working towards higher living standards for New Zealanders, we developed the Living Standards Framework. Our Living Standards Framework provides us with a shared understanding of what helps achieve higher living standards to support intergenerational wellbeing.

Distribution

People

Place

Time, generations

Our work is focussed on promoting higher living standards and greater intergenerational wellbeing for New Zealanders. These require the country's Four Capitals – human, social, natural and financial/physical – to each be strong in their own right and to work well together.

The Four Capitals (natural, human, social, and financial and physical) are the assets that generate wellbeing now and into the future

Looking after intergenerational wellbeing means maintaining, nourishing, and growing the capitals

Natural Capital

All aspects of the natural environment that support life and human activity. Includes land, soil, water, plants and animals, minerals and energy resources.

Social Capital

The norms, rules and institutions that influence the way in which people live and work together and experience a sense of belonging. Includes trust, reciprocity, the rule of law, cultural and community identity, traditions and customs, common values and interests.

Human Capital

The capabilities and capacities of people to engage in work, study, recreation, and social activities. Includes skills, knowledge, physical and mental health.

Financial and Physical Capital

Financial and human-made (produced) physical assets, usually closely associated with supporting material living conditions. Includes factories, equipment, houses, roads, buildings, hospitals, financial securities.

The 12 Domains of current wellbeing

reflect our current understanding of the things that contribute to how New Zealanders experience wellbeing

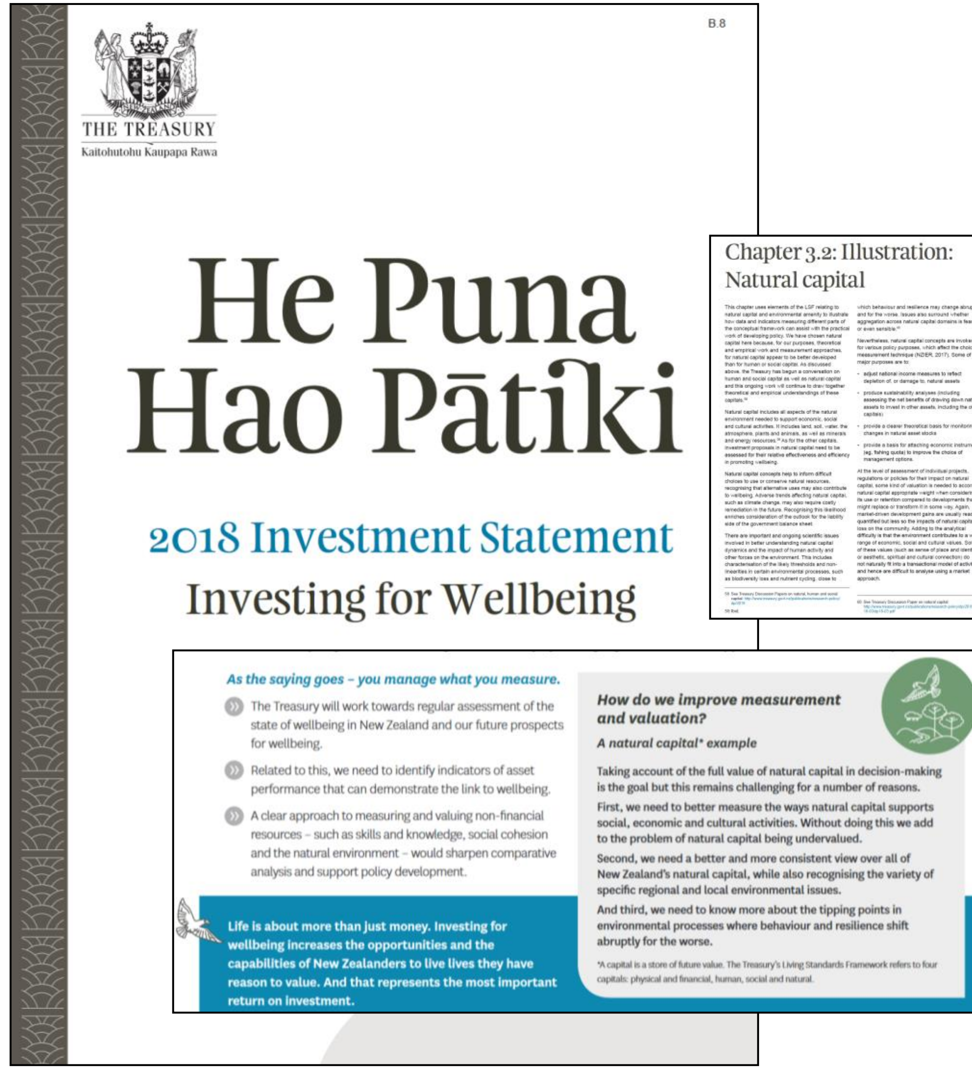
- Civic engagement and governance
- Cultural identity
- Environment
- Health
- Housing
- Income and consumption
- Jobs and earnings
- Knowledge and skills
- Time use
- Safety and security
- Social connections
- Subjective wellbeing

Resilience

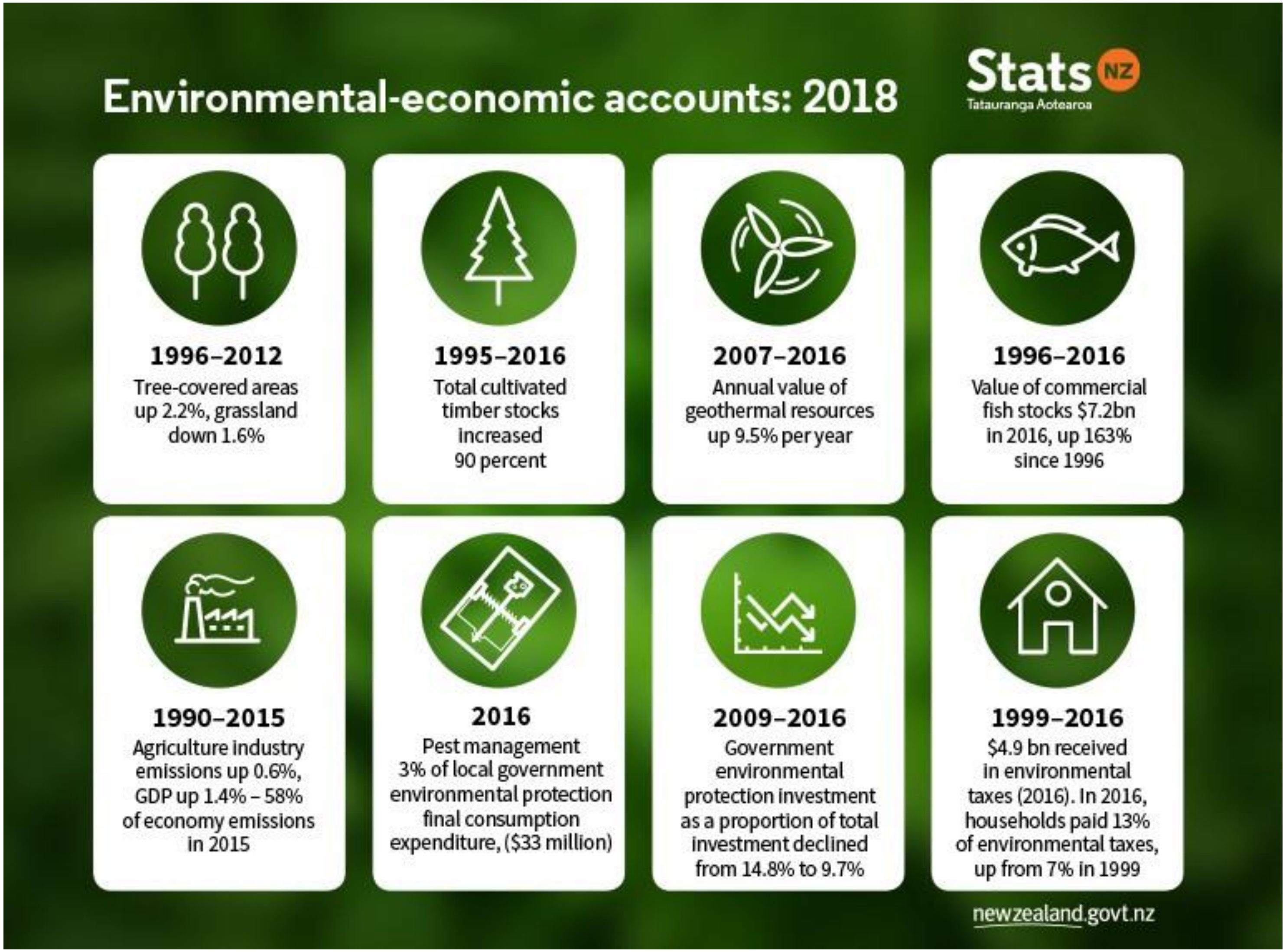
prompts us to consider how resilient the Four Capitals are in the face of change, shocks, and unexpected events

Demand driven – Bottom up: NZ Treasury 2018 Investment Statement [‘MACRO’]

- The Public Finance Act requires the Investment Statement to describe and state the value of the Crown's portfolio of significant assets and liabilities (i.e. its balance sheet)
- The government’s balance sheet represents a financial valuation of a proportion of NZ’s financial and physical capital.
- The Statement also explores how balance sheet management can be extended to further support wellbeing, in particular Natural Capital.



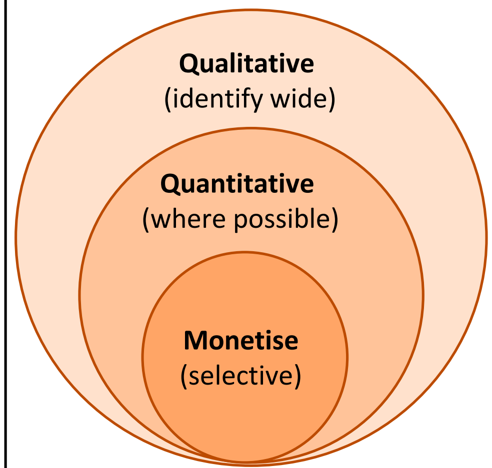
Natural Capital Accounting (SEEA) Updated



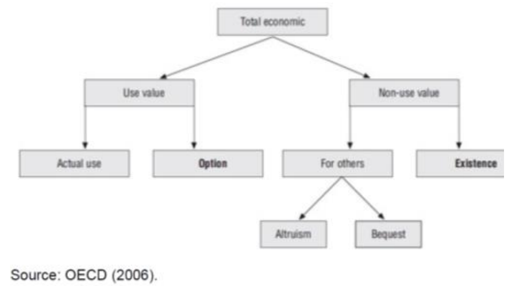
Demand driven – Bottom up: NZ Treasury CBAx [‘MICRO’]

- The CBAx tool is a spreadsheet model that contains a database of values to help agencies monetise impacts and do cost benefit analysis
- Adoption of the Total Economic Value Framework.
- Key barriers include:
    - Policy capability
    - Putting a price on nature
    - Pace of policy

Pragmatic approach to valuation

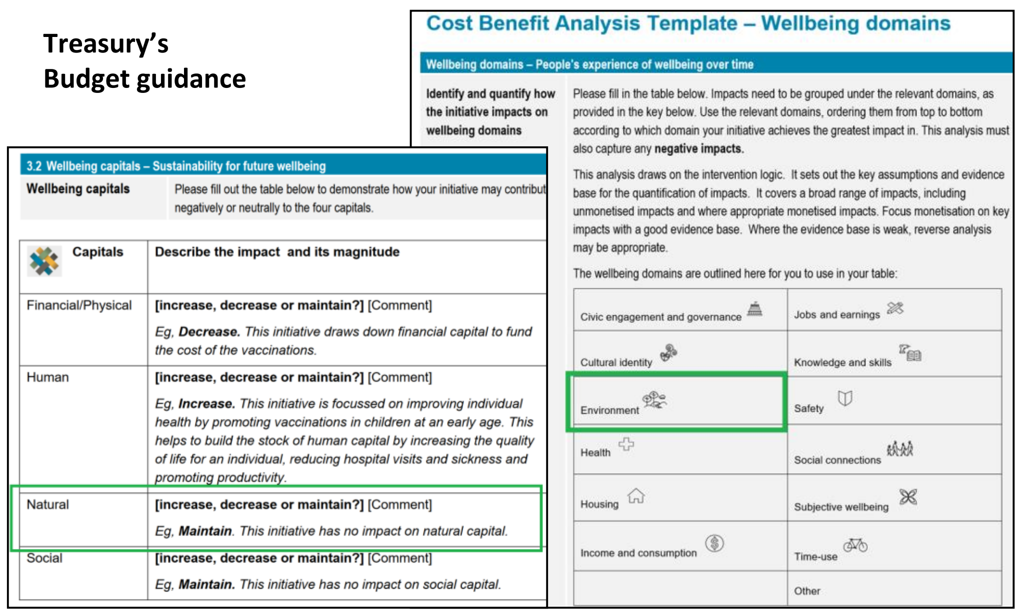


Total Economic Value Framework



Source: OECD (2006).

Treasury’s Budget guidance



Cost Benefit Analysis Template – Wellbeing domains

Wellbeing domains – People's experience of wellbeing over time

Identify and quantify how the initiative impacts on wellbeing domains

Please fill in the table below. Impacts need to be grouped under the relevant domains, as provided in the key below. Use the relevant domains, ordering them from top to bottom according to which domain your initiative achieves the greatest impact in. This analysis must also capture any **negative impacts.**

This analysis draws on the intervention logic. It sets out the key assumptions and evidence base for the quantification of impacts. It covers a broad range of impacts, including unmonetised impacts and where appropriate monetised impacts. Focus monetisation on key impacts with a good evidence base. Where the evidence base is weak, reverse analysis may be appropriate.

The wellbeing domains are outlined here for you to use in your table:

Civic engagement and governance	Jobs and earnings
Cultural identity	Knowledge and skills
Environment	Safety
Health	Social connections
Housing	Subjective wellbeing
Income and consumption	Time-use
	Other

3.2 Wellbeing capitals – Sustainability for future wellbeing

Wellbeing capitals Please fill out the table below to demonstrate how your initiative may contribut negatively or neutrally to the four capitals.

Capitals	Describe the impact and its magnitude
Financial/Physical	**[increase, decrease or maintain?]** [Comment] *Eg, **Decrease.** This initiative draws down financial capital to fund the cost of the vaccinations.*
Human	**[increase, decrease or maintain?]** [Comment] *Eg, **Increase.** This initiative is focussed on improving individual health by promoting vaccinations in children at an early age. This helps to build the stock of human capital by increasing the quality of life for an individual, reducing hospital visits and sickness and promoting productivity.*
Natural	**[increase, decrease or maintain?]** [Comment] *Eg, **Maintain**. This initiative has no impact on natural capital.*
Social	**[increase, decrease or maintain?]** [Comment] *Eg, **Maintain.** This initiative has no impact on social capital.*

Natural Capital Accounting (SEEA) in New Zealand

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Demand driven – top down: New Coalition Government in NZ (Late 2017)

- Policy Programme (selection only)
  - Introduce a Zero Carbon Act and establish an independent Climate Commission.
  - All new legislation will have a climate impact assessment analysis.
  - A comprehensive set of environmental, social and economic sustainability indicators will be developed.
  - Increased funding for biodiversity protection.
  - Improve water quality.
  - Safeguard the healthy functioning of marine ecosystems and promote abundant fisheries.
  - Request the Climate Commission to plan the transition to 100% renewable electricity by 2035 (which includes geothermal) in a normal hydrological year.

Demand driven – Bottom up & top down: [‘MACRO’]

Stats NZ
Tatauranga Aotearoa

Source: https://wellbeingindicators.stats.govt.nz/

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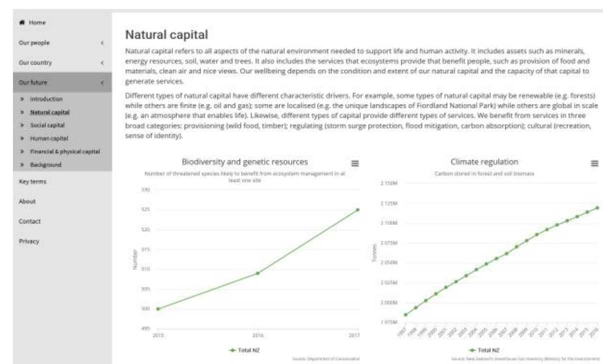
Current Wellbeing in New Zealand

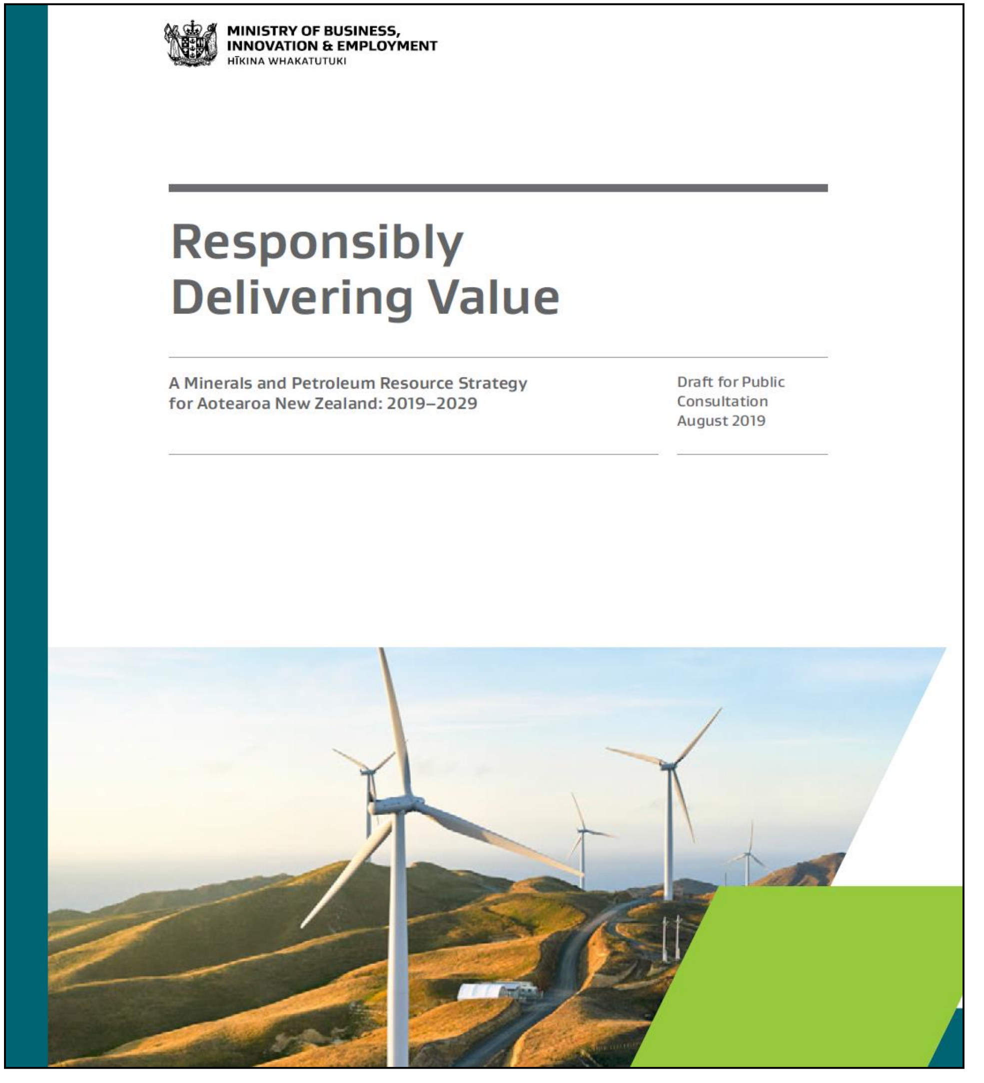
Trend	Domain	Indicator	Units
	Civic Engagement and Governance	Perceived corruption	Corruption perception index score on a scale from 0 (highly corrupt) to 100 (very clean)
	Civic Engagement and Governance	Trust in government institutions	Percentage of adults who, overall, trust the public service
	Civic Engagement and Governance	Voter turnout	Percentage of enrolled electors who voted in the general election
	Cultural Identity	Ability to express identity	Percentage of adults who said it was easy or very easy to express their identity in New Zealand
	Cultural Identity	Te Reo Māori speakers	Percentage of people who can converse about a lot of everyday things in Te Reo Māori
	Environment	Access to the natural environment	Percentage of adults who said they could easily get to most of their local green spaces
	Environment	Air quality	National annual average PM10 concentration
	Environment	Perceived environmental quality	Perceived state of New Zealand's environment, on a scale from 1 (very good) to 5 (very bad)
No trend available	Environment	Water quality (swimmability)	Percentage of tested river sites that are safe to swim in under normal conditions
	Health	Health status	Percentage of adults reporting good or very good health
	Health	Healthy life expectancy	Number of years an infant under 1 year old can expect to live in good health



Source: https://lsfdashboard.treasury.govt.nz/wellbeing/

Responsibly Delivering Value (draft Strategy)

- Vision
    - A world-leading minerals and petroleum sector that delivers value for New Zealanders, both now and in the future, **in an environmentally and socially responsible way.**
- Principles (sample only)
    - The environment, ecosystems, and biodiversity are respected now and in the long term.
    - Support a circular economy by meeting resource needs through resource efficiency, recycling and reuse.
    - Support the transitions to a carbon neutral economy by 2050.



Key Takeaways

- Natural capital accounting (and approach) in NZ started as supply driven but is now demand driven (bottom up & top down).
- Natural capital data gaps and limitations exists in NZ but at least we've started.
- Policy advisor capability and pace of policy pose a barrier to quantification (and monetisation) of environmental impacts.
- *"Continuous improvement is better than delayed perfection."*
- Reminder: Intergenerational Wellbeing is the focus of policy (of which Natural Capital is one component of).

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Thank you

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