Feedback on
The Living Standards Framework Dashboard

To the Treasury 21 December 2021

Submitter details

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The Parliamentary Commissioner for the Environment

The Parliamentary Commissioner for the Environment was established under the Environment Act 1986. As an independent Officer of Parliament, the Commissioner has broad powers to investigate environmental concerns and make recommendations to improve environmental outcomes. The Commissioner is wholly independent of the government of the day. The current Parliamentary Commissioner for the Environment is Simon Upton.

Key Points

- The definition and treatment of the environment in the Living Standards Framework should be improved to provide a coherent conceptual basis to guide the selection of environment-related indicators for the Dashboard. This includes a description of the different components of natural capital (e.g., air, water, soil, biodiversity etc.) and associated biophysical processes.

- The natural and built environment should not be treated as part of the same domain but should instead be considered independently.

- The System of Environment-Economic Accounting should be drawn upon to provide indicators that account for natural capital stocks and associated ecosystem services.

- Further work could also involve defining and incorporating environmental benchmarks in the Dashboard to identify priority areas for consideration in the budget process.

Introduction

Thank you for the opportunity to provide feedback on the Living Standards Framework (LSF) Dashboard and the inclusion of new indicators to reflect the latest iteration of the LSF.[1] As a measurement framework, the Dashboard represents an important tool to guide the communication and implementation of the LSF and wellbeing approach to fiscal policy. Its continued development is critical to ensuring that the most relevant and appropriate measures of natural capital inform the fiscal decision-making process.

The environment has several features which present a barrier to the integration of environmental considerations into a wellbeing budgetary framework. These features include the complexity of the relationship between the environment and wellbeing, the existence of thresholds and tipping points, and the long-term and enduring nature of many environmental impacts. A robust statistical evidence base of policy-relevant indicators is therefore required to address the growing range and severity of environmental challenges. Such an evidence base is essential if budgetary priorities are to be well constructed and resources allocated on the basis of their contribution to wellbeing.

With respect to the inclusion of additional environment-related indicators in the LSF Dashboard, I acknowledge that a lack of existing data represents constraints and limitations. Improving the state of environmental reporting is a subject on which I have previously made recommendations. I cannot emphasise too strongly how important this is. Without it, public money will not be invested wisely or in alignment with the most significant environmental risks we face. The development of a dedicated set of core environmental indicators for inclusion in the Dashboard would allow for the changing state of natural capital to be monitored over time.[2]

This submission provides feedback regarding the conceptual framing and definition of the environment arising from recent adjustments to the LSF, as well as more long-standing issues originating from previous versions of the LSF. The submission also provides feedback regarding the potential inclusion of indicators derived from natural capital accounting that aim to measure the environmental wealth of Aotearoa New Zealand. While feedback is focused on the LSF Dashboard, the contents should be seen in the context of my recently released report entitled *Wellbeing budgets and the environment: A promised land?* This report provides a broader evaluation of how the environment is incorporated into the construction of wellbeing budgets.[3]

The conceptual treatment of the environment in the LSF

For any measurement initiative, the selection of appropriate indicators is dependent on the existence of a detailed and coherent underlying conceptual framework. A well-developed conceptual framework provides an organising structure that:

- Defines and delineates the scope of the statistics under consideration.
- Simplifies the complexity of the phenomena of interest so that key variables and relationships of interest can be more easily identified and measured.

[1] Additional details regarding the Treasury's request for feedback can be found at https://www.treasury.govt.nz/publications/tp/living-standards-framework-2021-html [accessed 21 December 2021].
[2] See https://www.pce.parliament.nz/publications/focusing-aotearoa-new-zealand-s-environmental-reporting-system.
[3] See https://www.pce.parliament.nz/publications/wellbeing-budgets-and-the-environment.

- Helps identify the range of statistics that are relevant for policy and decision making.

Accordingly, ensuring that key concepts within a framework are well defined is a necessary prerequisite to guide the identification and selection of appropriate indicators that describe the variables they intend to measure. Without this conceptual clarity, developing a coherent and consistent set of measures that are relevant to the concepts and dimensions included in the LSF becomes challenging.

Environmental amenity

There are several issues associated with how the environment is defined, at a conceptual level, within the most recent iteration of the LSF. At the level of individual and collective wellbeing, 'environmental amenity' is defined in terms of its direct amenity value associated with both the natural and built environment. This broad conceptualisation encompasses benefits derived from things as diverse as clean air and water and physical infrastructure including transport links.

From a measurement perspective, both the focus on amenity and the aggregation of the natural and built environment is problematic. This approach belies the complexity and heterogeneity of issues relevant to the natural and built environment and their different relationship to human wellbeing. Ideally, a statistical framework should provide the necessary clarity to define relevant indicators. This broad definition complicates the selection and inclusion of a cohesive and coherent set of indicators that can adequately account for the respective contributions that the natural and built environments make to wellbeing.

This approach also runs the risk of de-emphasising the relative importance of the biophysical condition of the environment through its focus on amenity. There are multiple channels linking the natural environment to human wellbeing that go beyond the scope of amenity value. This includes the state and biophysical condition of the natural environment that often acts as a precondition for human wellbeing.

Removing the focus on amenity would entail greater emphasis on indicators measuring various physical, biological and chemical attributes of the environment. Such measures provide useful information about changing environmental conditions and the subsequent impacts these have on human wellbeing. The current emphasis on environmental amenity ignores the more fundamental relationship between the environment and wellbeing and risks the omission of such indicators from the LSF Dashboard.

Natural environment and the wealth of Aotearoa New Zealand

Similar issues also arise regarding the conceptual treatment of the environment at the macro level. In the current iteration of the LSF, the natural environment is defined as 'all aspects of the natural environment which support life and human activity, whether valued for spiritual, cultural or economic reasons'. This definition fails to provide the necessary guidance regarding the individual constituents and different dimensions of the environment for the purpose of selecting relevant indicators.

A coherent conceptual description that can guide the development of the LSF Dashboard should include specific reference to:

- The different dimensions of the natural environment (e.g., air, water, soil, biodiversity etc.).
- The different types of natural resources and their characteristics in terms of whether they are renewable or non-renewable.

- The different types of benefits provided by the environment, including both use and non-use values.
- The contribution of climate and physical systems, including the various ecological and biophysical processes embedded within these systems and joint functioning between abiotic and biotic components.
- The critical or life-supporting aspects of the environment that place limits on the ability to substitute natural capital with other forms of capital.

While the process of developing a more detailed definition of the different dimensions of the environment is no easy task, there is an increasing body of literature, developed from both a conceptual and measurement perspective, that the Treasury could draw on. One potentially useful document that could assist is the *Common International Classification of Ecosystem Services*.[4]

Suggestion:

- The LSF should be amended to improve the description of the natural environment for the purpose of providing guidance and prioritising the inclusion of environment-related indicators in the Dashboard. This includes:
    - Disaggregating the natural and built environment and treating them as separate domains of individual and collective wellbeing.
    - Re-orientating the existing focus on environmental amenity, to be replaced with an emphasis on the changing biophysical condition of the natural environment.

  This will allow the LSF Dashboard to be populated with a focused and cohesive set of indicators concentrating on the changing state of the environment relative to environmental thresholds.

- The LSF should be amended to provide a more detailed definition of the different components of the natural environment as an element of the natural wealth of Aotearoa New Zealand. Such an approach will provide greater direction regarding the development of statistical measures that provide an overview of important natural capital stocks and associated ecosystem services.

Natural capital accounting

While the current selection of indicators included in the LSF Dashboard draws on a range of sources, one measurement framework that hasn't been incorporated into the Dashboard is natural capital accounting. The System of Environmental-Economic Accounting (SEEA) provides an internationally recognised statistical framework that integrates environmental and economic information using accounting standards and classification consistent with the System of National Accounts.

Accounts produced under the SEEA framework include:

- Asset accounts that track changes in the physical quantity of environmental assets over time (e.g., fish, timber, minerals and water).
- Flow accounts that measure the flow of pollutants and materials across the economy-environment boundary (e.g., pollutants and energy/raw materials).

[4] See https://cices.eu/content/uploads/sites/8/2018/01/Guidance-V51-01012018.pdf.

- Environment-related economic transaction accounts that record the flow of economic activities related to the environment (e.g., expenditure on environmental protection and resource management and environmental taxes).

The value of the SEEA in relation to measuring natural capital has already been recognised by the Treasury in the 2018 Investment Statement.[5] Stats NZ currently produces a select number of accounts relating to fish stocks, greenhouse gas emissions and environment-related economic transactions.

There is a considerable degree of conceptual alignment between the LSF and the SEEA as a measurement framework. For example, asset accounts can provide a high-level overview of the sustainability of natural resources, showing whether economic activity is depleting the natural resource base and posing a risk to wellbeing over the long term.

Asset accounts can be complemented with flow accounts, which can be used to further decompose changes in natural capital stocks and provide an understanding of underlying drivers in terms of extraction and harvesting rates. Flow accounts can provide the basis for compiling resource intensity indicators which can demonstrate the productivity of New Zealand's natural resource base.

Finally, indicators derived from environment-related economic transaction accounts could be used to measure the institutional level of the revised framework. These contextual indicators can assess the response of environment-related institutions in terms of their role in safeguarding New Zealand's natural wealth. For example, accounts relating to environmental protection expenditure by government agencies provide an indication of the extent to which these institutions are undertaking activity directed towards ameliorating environmental pressures.

The above indicates the potential relevance and value of natural capital accounting in terms of being able to measure different elements of the latest iteration of the LSF. The statistics and indicators derived from these accounts align with the different analytical prompts included in the framework. For example, natural capital accounts provide the basis for aggregate measures of resource sustainability, productivity, and resilience. Accordingly, natural capital accounts provide a means of quantitatively operationalising the different analytical lenses of the framework. Measures relating to key natural capital stocks in the LSF Dashboard is one approach to systematically incorporating the risks relating to New Zealand's natural capital in the budget process.

Stats NZ has produced SEEA accounts that provide an overview of the quantity of natural capital available for both productive and non-productive use. For example, timber accounts have provided an indication of the extent to which New Zealand's forestry resources have changed over time and detail changes in the composition of these resources.[6] These accounts demonstrate the sustainability of the resource by comparing the flow of timber to the economy relative to the stock of timber. This provides an indication of the extent to which these resources are being used as part of the economic production process or being conserved for future generations plus their supply of non-provisioning ecosystem services.

In some cases, the measures produced by these accounts are able to be geographically disaggregated to show trends at a sub-national level. This is an important characteristic given the inherently spatial nature and diversity of the natural environment. For a nation that is heavily reliant on its endowment of natural capital, there is likely to be considerable value derived from including such measures in the LSF Dashboard to inform fiscal decision making.

[5] See https://www.treasury.govt.nz/sites/default/files/2018-03/is18-hphp-wellbeing.pdf.
[6] See https://www.stats.govt.nz/reports/environmental-economic-accounts-2018.

While there appears to be an expanded role for environmental-economic accounting within the LSF Dashboard, such a measurement approach does have limitations.[7] These accounts typically ignore the complexities of ecosystem processes and dynamics, including the interactions between different components, the existence of biophysical thresholds, and limits regarding the substitutability of natural capital.

Furthermore, natural capital accounts are compiled from the perspective of natural resources and associated environmental source and sink functions. This ensures that indicators derived from these accounts are only able to provide a high-level overview of the potential risks to wellbeing resulting from unsustainable resource use and environmental degradation.

Given these limitations, natural capital accounting should not be regarded as a panacea. Other initiatives remain crucially important, including work undertaken by the Ministry for the Environment and Manaaki Whenua – Landcare Research to develop a set of core measures that explicitly link the environment and wellbeing.[8]

Going further, work to develop and incorporate environmental benchmarks and thresholds in the LSF Dashboard would prove beneficial. Once these are established, they can be compared with information on the state of the environment and provide decision makers with an up-to-date understanding of when environmental thresholds might be breached, prompting action. An improved understanding of the key areas for attention could further inform the prioritisation of government expenditure on the environment. Within this context, natural capital accounting should be seen as an important source of indicators that are complementary to other measurement initiatives and frameworks.

Suggestion:

- The Treasury should, in conjunction with Stats NZ, identify and develop a set of natural capital accounts for the most important aspects of New Zealand's natural wealth. Indicators derived from these accounts should be formally integrated into the LSF Dashboard to provide the basis for measuring New Zealand's capital stocks where appropriate.

[7] For a discussion of the broader conceptual limitations associated with the application of a natural capital lens to the environment refer to chapter two of *Wellbeing budgets and the environment: A promised land?* https://www.pce.parliament.nz/publications/wellbeing-budgets-and-the-environment.

[8] See https://www.landcareresearch.co.nz/uploads/public/Publications/Working-papers-and-reports/LC3901_TechnicalReport.pdf.