

Placing value on wellbeing – alternative approaches to assessing and prioritising public initiatives

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Kia whaihua mō te oranga



Meet the team



He mihi tēnei ki ngā iwi Māori huri noa te motu e tū rangatira ai, ngā tāngata whenua o Aotearoa. Tēnei te mihi ake, tēnei te mihi ake, tēnei te mihi ake.

This is to acknowledge Māori people from across the country who stand proudly as the home people of this land Aotearoa New Zealand. We acknowledge you with deep respect.

The Australian authors acknowledge the traditional custodians of the lands on which we live and work. We show our respect for Elders past, present and emerging through thoughtful and collaborative practices.



# **Executive summary**

# Growth alone does not lead to a great country, so, it's time to focus on the things that do (Ardern, 2019)

Wellbeing is paramount to a well-functioning society. A well-known Māori expression — 'He aha te mea nui o te ao, he tangata he tangata he tangata' — roughly translates as 'What is the most important thing in the world, it is people, it is people, it is people'. The wellbeing of people is vitally connected to the wellbeing of our economy and our environment. It is this interconnection which is recognised by the New Zealand Government in its approach to prioritising wellbeing. This is evident in the New Zealand Government's Wellbeing Budget approach and in the New Zealand Treasury's (the Treasury) focus on lifting living standards for all New Zealanders. In 2018, the newly elected Prime Minister's 100-day plan speech outlined her Government's ambition:

"We want New Zealand to be the first place in the world where our budget is not presented simply under the umbrella of pure economic measures, and often inadequate ones at that, but one that demonstrates the overall wellbeing of our country and its people." (Ardern, 2018)

However, wellbeing has not always been the focus of an economy. Internationally, economic rationalism has, especially since the 1980s, been focused too narrowly on growth (Mazzucato, 2021). Increasingly it is recognised that Gross Domestic Product (GDP) is not a proxy for wellbeing and that growth operates within some very real boundaries and limitations (Raworth, 2017). Measuring GDP cannot capture everything that is important to people – health, family, relationships, environment and education are also important contributors to a sense of satisfaction (Kinderman, 2015).

Traditional economic understandings are now being challenged to take a more holistic view. The threat of climate change, or the reality of growing inequality indicates that our future wellbeing relies on the sustainability of several capitals – not just financial growth – if we are to live within our planetary boundaries and ensure an inclusive society (United Nations, 2015).

"Growth in GDP should not be pursued at any and all cost ... The goal of economic policy should be collective wellbeing: how happy and healthy a population is, not just how wealthy a population is." (Sturgeon, 2019)

The tried-and-tested traditional tools we have at our disposal to help government and its agencies prioritise their spend, such as cost benefit analysis (CBA), are being challenged in the literature, and by agencies and practitioners as the most appropriate mechanism to assess wellbeing objectives. This is especially the case where things are harder to measure or inappropriate to monetise, or where benefits occur over longer-term horizons. Our research decided to tackle this question head-on. Our sponsoring agency, the Ministry of Business, Innovation and Employment (MBIE) is looking for alternative approaches to assess and prioritise public initiatives beyond narrow economic and short-term measures of success. Therefore, we set out to discover:

# How can MBIE better account for non-monetised benefits that may occur well into the future when assessing and prioritising initiatives?

Our research led us to gain a greater understanding of existing approaches used, by exploring a range of international frameworks and practice, and interrogating commonly used analytical methods such as CBA. We focused on better understanding alternative approaches used internationally which could be readily applied or adapted by MBIE and other New Zealand agencies looking to prioritise wellbeing.

New Zealand is well-recognised for its wellbeing philosophy and has developed several innovations that help establish a broader view (Weijers & Morrison, 2018). These innovations include the Wellbeing Budget and the Living Standards Framework (LSF) developed by the Treasury which aligns with international frameworks for sustainable development including the Organisation for Economic Cooperation and Development (OECD) and United Nations (UN) Sustainable Development Goals (SDGs) (Smith, 2018). Work is also underway to recognise a Te Ao Māori perspective on wellbeing though this is an emergent space (New Zealand Treasury, 2021).

We also found a number of tools and approaches have been developed and applied, in New Zealand and internationally, to better align with wellbeing approaches. These include the extension of CBA through a 'social' dimension, including the Treasury's development of tools such as CBAx, which encourage people to look at broader wellbeing impacts and provides an approach to monetisation of a range of wellbeing factors. Others a multi-criteria analysis (MCA) approach to weight a range of goals, alongside cost effectiveness.

The academics and practitioners we spoke to provided useful insight into approaches used to track success beyond traditional economic indicators. While there was not a single consensus view on which alternative approach to use, there was a general agreement and support for finding ways to assist agencies to operationalise ideas articulated through the UN SDGs (United Nations, 2015), Doughnut Economics and the circular economy (Raworth, 2017) as well as the LSF (New Zealand Treasury, 2019) — through simple practical tools and guidance. There was a clear gap in a practitioner's ability to consistently translate factors which are well-supported at the macro level (sustainable development) into public initiative prioritisation and decision-making. It is this gap which we set out to address in the development of a new approach.

Our research led us to develop a tool called the *Wellbeing Impact Screening Tool* (WIST). This tool aims to provide a practical step forward for MBIE and other New Zealand agencies to better operationalise the LSF and analyse and prioritise their investment decisions in line with wellbeing objectives – now and into the future. We consider the LSF as a suitable wellbeing framework for the WIST, given it has been specifically developed for the New Zealand context. We advocate for this screening tool to be used as the first step in assessing public initiatives. The tool seeks to secure the sustainability and resilience of the four LSF capitals by ensuring initiatives do not deplete but build or have a neutral effect on these capitals. These capitals – natural, human, social, financial and physical – must be maintained, nourished and grown if we are to care for intergenerational wellbeing, now and into the future (New Zealand Treasury, 2019).

The research has led us to make six recommendations to MBIE and the New Zealand Government, to support achievement of its wellbeing objectives.



Recommendation 1: Implement the use of a wellbeing impact screening tool, based on the LSF, when assessing and prioritising investment decisions.

No single alternative approach that appropriately takes into account wellbeing was elicited from our research. However, based on the input from several academics and practitioners, we have formed a view that wellbeing must become the first hurdle any public initiative meets, prior to further consideration.

We have developed a screening tool – the WIST – that would support this proposed change. Such a tool is key to taking macro concepts and applying these to assist prioritisation at the agency level. The design of the tool, including its simplicity, aims to assist New Zealand practitioners to become increasingly familiar with LSF principles and begin a shift in culture within agencies where LSF considerations become a norm in all decision-making and planning processes. The proposed WIST is a starting point and there is potential for the tool to be reviewed and improved upon over time to, for example, incorporate an automated analytical component with pre-filled data (such as government priorities, LSF indicators, and any future targets) which would make the process more streamlined and consistent, and/or to reflect the LSF as it evolves (e.g. to become more aligned with Te Ao Māori values).



Recommendation 2: Continue to use an appropriate analytical mechanism but ensure those using it have the appropriate skills and experience and that assumptions are clearly documented.

The screening tool alone is a hurdle only, focusing primarily on the sustainability and resilience of the four LSF capitals. There remains scope for the continued use of analytical methods, including CBA, to contribute other evidence and considerations (e.g. impact on domains) to the decision-making process. Despite some legitimate challenges and criticisms of CBA, we have formed the view that it is still an effective and useful method, if done well and transparently, by which costs and benefits of initiatives can be consistently and systematically organised and analysed. The key to doing this successfully is improving the capability of public servants and ensuring assumptions and judgements are clearly documented, to assist decision-makers. We do not advocate hiding assumptions behind a 'number' and explicit qualitative analysis is important when presenting the results of such methods.



Recommendation 3: Build the understanding and capacity of New Zealand government agencies to use and interact with the LSF.

Developing the capability of public servants to understand wellbeing and its dimensions and interconnections, the LSF and its criticality in delivering public value, is vital. This could include establishing a centre of excellence with LSF champions, and targeted training and professional development on the LSF.



It was clear from our research that some work is being done by individual agencies but with little central co-ordination. Establishing an interdepartmental structure, such as those enabled under the new Public Service Act 2020, will encourage greater collaboration between agencies and a joined-up focus towards enabling New Zealand's Wellbeing Budget approach, the LSF and achievement of SDGs.

#### Recommendation 5: Continue to build on and develop the LSF

The LSF must continue to evolve and be regularly reviewed so that the domains and supporting indicators continue to represent the most important values and outcomes at a national and international level, across the range of social, environmental and economic factors.



Recommendation 6: Explore ways to ensure greater incorporation of Te Ao Māori world views, values and culture in wellbeing analysis and decision-making.

Greater emphasis on Te Ao Māori will enrich wellbeing analysis and government decision-making. The application of emergent frameworks such as He Ara Waiora in conjunction with the LSF and other analytical methods (CBA or MCA) provide a rich tapestry in support of wellbeing objectives. This requires deliberate partnership and experimentation to create new insight and ways of doing things.

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# PLACING VALUE ON WELLBEING













CASE FOR CHANGE

Looking after intergenerational wellbeing



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Human capital





Alternative approaches to assessing and prioritising public initiatives























# Report

# **Background and introduction**

MBIE is responsible for improving the wellbeing of New Zealanders through its diverse responsibilities, such as overseeing regulatory market systems, managing New Zealand's immigration rules and supporting economic and small business strategies (MBIE, 2021). In 2019-20, MBIE expended over \$930 million to undertake these broad range of activities (MBIE, 2020). Investment decisions on public initiatives are predominantly prioritised using CBA, although some decisions are informed by a comparison of projected benefits realised by investments.

Given that the strategic goal of MBIE is to 'improve the wellbeing of New Zealanders', MBIE is interested in how to better incorporate the value of wellbeing into its investment decisions. It recognises that there are limitations to a traditional CBA and that alternative frameworks, for example Doughnut Economics (Raworth, 2017), might better help it consider benefits that are difficult to monetise or not realised until well into the future.

MBIE is seeking to learn more about alternative approaches and is keen for a solution to help it measure the benefits of public initiatives in a productive, resilient, inclusive, sustainable and Māori enabling manner. The MBIE Chief Economist, Donna Purdue, speaking at the 2018 Productivity Conference, said:

"Setting the appropriate frameworks and letting growth flow is no longer seen as sufficient to deliver the kind of economy people want... With appropriate measurement of wellbeing, not just traditional metrics of GDP and income, we can build compelling stories of what we want to achieve and better understand where investment needs to take place." (Purdue, 2018)

In the context of climate change, dwindling natural resources, worsening mental health outcomes, and increasing inequalities, even in countries of strong economic growth, it is clearly no longer acceptable for MBIE to use narrow economic and short-term measures of success when assessing and prioritising public initiatives. New Zealand is well placed to explore the application of different approaches. The political authorising environment has clearly committed (Colebatch, 2009) to the idea that the success of New Zealand is more than economic prosperity. This is highlighted by the LSF (New Zealand Treasury, 2019), the 2019 Wellbeing Budget (Ardern, 2019) and subsequent wellbeing budgets.

In this context, our research question is:

How can MBIE better account for non-monetised benefits that may occur well into the future when assessing and prioritising initiatives?

Our paper is set out in seven parts. Part 1 describes our research design and method. Part 2 explores New Zealand's current practice relating to its existing wellbeing framework and prioritisation tools. Part 3 considers the various wellbeing frameworks, prioritisation tools and methods in other jurisdictions and contexts, including some critique. Part 4 explores in greater detail the insights which were gained from our interviews, and Part 5 outlines our overall findings from our review of the literature and interviews. Part 6 sets out the new wellbeing screening tool for the New Zealand context, called the Wellbeing Impact Screening Tool. Our recommendations are presented in Part 7.

# Part 1 - Research design and method

#### Research design

The objective of our research was to explore alternative ways that MBIE and New Zealand practitioners could prioritise government investments to better account for benefits that are difficult to value or are not realised until well into the future. To realise this objective, we undertook the following steps:

- gaining an understanding of the existing approaches used in New Zealand
- exploring international current frameworks and practice, including where it was working well and any challenges being experienced
- reviewing, in particular, CBA and MCA, as the most commonly used analytical methods
- examining the alternative approaches used internationally and considering whether these would be applicable to MBIE, and other New Zealand government agencies.

Throughout our research, we kept three criteria front-of-mind:

- 1. How well a particular approach enables decision-makers to consider costs and benefits that are not easily monetised now or into the future
- 2. Whether objective and transparent assessments could be made using the approach
- 3. Keeping the approach simple to enable easy adoption by practitioners.

#### Research method

Our methods were approved by the ANZSOG Human Resources Ethics Committee on 24 May 2021. We invited 28 potential interviewees and undertook 18 semi-structured interviews: four with academics, such as economists involved in the establishment of the LSF or localisation of the SDGs; and 14 with practitioners, such as New Zealand public servants, and representatives from local councils who have adopted approaches based on Doughnut Economics or SDGs.

To ensure we had reached out to relevant interviewees and brought significant rigour to our interviews, we undertook a literature review of New Zealand's current state, CBA as a method and alternative frameworks, practice and approaches used (for example, in other jurisdictions and internationally). We drew from academic journal articles, reports, public policy books, websites and other sources.

Our insights were greatly informed by the interviews, each being around 60 minutes in duration. A set of questions was used as a starting point for these discussions and a spreadsheet was used to record key findings and emerging themes. The interviews were typically undertaken by two researchers and were recorded so other researchers could review to gain relevant insights.

Our participant sample was not representative of organisations or individuals using, or knowledgeable about, alternatives to CBA in two respects. First, we lacked a comprehensive list of organisations using alternatives, and while we contacted a variety of jurisdictions, including experts and practitioners from the Netherlands, Denmark, Belgium, Canada and the United States, we were only successful in interviewing experts and practitioners from Australia and New Zealand. Nevertheless, we were fortunate to speak with people with significant relevant expertise and experience, such as economists and other academics who specialise in wellbeing frameworks, individuals who were involved in designing the LSF, and practitioners who prioritise public initiatives and utilise prioritisation tools in their roles. We continued to undertake interviews until similar themes emerged, from which we concluded that little new knowledge or divergent views would be gained through further engagement.

Second, a Te Ao Māori perspective, one of the key characteristics sought by MBIE, was not able to be fully addressed. However, we did speak with representatives from two Māori trusts and considered relevant literature. While a limitation, we recognise that creating an approach that brings a Māori world view to our research question deserves a research project itself using extensive primary research, engaging with a broad range of Māori organisations, iwi, Te Puni Kōrkiri | Ministry of Māori Development and Te Arawhiti | Office for Māori Crown Relations.

### Part 2 - Current New Zealand practice

New Zealand is recognised as a global leader for its wellbeing philosophy, which recognises that the success of a nation is broader than economic prosperity and that measurement over a longer-term horizon is essential (Weijers & Morrison, 2018). Since 2016-17, this has driven transformation in the New Zealand Government's approach to budget and policy processes compared to the previous fiscal strategy of rising surpluses and reducing net debt.

"While economic growth is important – and something we will continue to pursue – it alone does not guarantee improvements to our living standards... Nor does it measure the quality of economic activity or consider who benefits and who is left out or left behind." (Ardern, 2019)

#### The Wellbeing Budget

In 2019, the New Zealand Government introduced its first Wellbeing Budget. Wellbeing is defined as when people lead fulfilling lives with purpose, balance and meaning to them (New Zealand Government, 2019). As part of this budget, the New Zealand Government committed to making better choices for future generations and looking beyond economic growth to consider social, environmental, and economic implications together, using an evidence-based approach.

The Wellbeing Budget process in New Zealand differs from traditional processes as agencies are required to identify how long-term benefits are achieved. In addition, success is measured through the LSF (New Zealand Treasury, 2019). The difference in budget processes is highlighted below in Figure 1.

**Traditional Budget Process** 

Cabinet agrees to broad priorities to guide Budget decisions as part of the strategy

Ministers and agencies develop initiatives The Treasury assesses initiatives, with a focus on value for money and strategic alignment

Cabinet agrees to a final package recommended by Budget Ministers

Budget documents present the final package

#### **Wellbeing Budget Process**

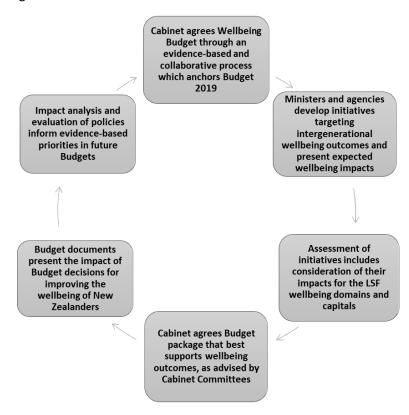


Figure 1: New Zealand budget process (New Zealand Government, 2019)

Recent changes to legislation require budgets from 2021 to be guided by objectives that support long-term social, environmental, economic, and cultural wellbeing (Controller and Auditor-General, 2021). The changes also require the Treasury to produce a report at least every four years about the state of wellbeing in New Zealand, with the first due in 2022.

#### **Living Standards Framework**

The LSF was developed by the Treasury as a framework for thinking about wellbeing in the present, the future and in relation to risk and resilience (New Zealand Treasury, 2019). Investment decisions and priorities for the Wellbeing Budget are determined by analysing evidence and data collected against the LSF and other relevant evidence. The current iteration of the LSF is based on the OECD's Better Life Model and consists of four capitals and twelve domains of wellbeing (Smith, 2018). An LSF dashboard has been developed to support the LSF as a tracking tool of New Zealand's progress against wellbeing measures (New Zealand Treasury, 2019). A summary of the LSF is shown below in Figure 2.



Figure 2 Summary of the LSF Framework (New Zealand Treasury, 2019)

Most of the indicators featured in the LSF dashboard do not have targets established and it is difficult to compare New Zealand's performance on these indicators against other countries. There is also scepticism from some commentators as to the quality of indicators included in the LSF (Smith, 2018), including its lack of alignment with international SDGs (Controller and Auditor-General, 2021).

A range of New Zealand government agencies have undertaken some work to consider the LSF from a Māori perspective, for example, work by Te Puni Kōkiri (2019), Te Puni Kōkiri and the Treasury (2019) and the Ministry for Culture and Heritage (Dalziel, et al., 2019). This work highlights that consideration of factors broader than economic development is welcomed but that an indigenous lens must be applied to the LSF and that taking this work forward is part of a much broader and ongoing conversation informed by Māori and non-Māori peoples. We note that the Treasury is undertaking this work as part of the development and piloting of the application of the He Ara Waiora framework in parallel with the LSF, to interweave and embed Te Ao Māori perspectives in policy advice, with integrity (New Zealand Treasury, 2021).

#### Cost benefit analysis guide and tools

The Treasury has developed a range of useful information to support agencies in putting forward proposals for government investment through the budget process including benefits management and the development of better business cases.

For example, the Treasury provides guidance for agencies on how to undertake a 'Social' Cost Benefit Analysis, and how to utilise a bespoke tool designed by the Treasury (CBAx) in conducting a more robust CBA (New Zealand Treasury, 2015) (New Zealand Treasury, 2020). CBAx is a tool that has information for agencies on how to monetise impacts as outlined in Box 1 (New Zealand Treasury, 2020) (New Zealand Treasury, 2020) (Davies, 2018). CBAx provides a mechanism for quantitatively and qualitatively assessing the costs and benefits of those things that are not easily able to be monetised. The Treasury expects broad analysis will be undertaken to inform expenditure decisions. The use of the CBA process or the CBAx tool is not, however, mandated.

The Treasury considers that the broader use of the CBAx tool will enable a more transparent and reliable comparison of different options as the associated costs and benefits of each rely on the same underlying data contained in the CBAx. The CBA process, including the CBAx tool, is also effective in enabling the considerations, evidence and any assumptions used in the analysis to be clearly outlined in a consistent and systemic way. Nevertheless, while the Treasury highlights the benefits of this approach, they are also open about some of the limitations of CBAx including that, to be effective, agencies must be able to quantify an impact or rate of success, which is not always possible (New Zealand Treasury, 2020).

#### Other assessment tools

Promisingly, over the past five years there have been several examples of New Zealand government agencies making use of the growing amount of evidence and wellbeing data to complement CBA. See Box 2 for an example from Waka Kotahi New Zealand Transport Agency (Waka Kotahi New Zealand Transport Agency, 2018). Other examples of assessment tools in New Zealand include:

- 'Bringing Gender In', a gender analysis tool which refers to the LSF dashboard and Indicators Aotearoa New Zealand (IANZ) (Ministry for Women, 2021)
- the Child Impact Assessment Tool which enables agencies to identify, analyse and assess the impacts of any proposed law or policy on the rights and wellbeing of children and young people and (Ministry of Social Development, 2018)

Box 1

# The Treasury's CBAx Tool

The CBAx is a cost benefit analysis tool which is made up of a database of values to help agencies more readily monetise wellbeing impacts. It is recommended by the Treasury to be used as part of a more robust 'Social' CBA process where appropriate.

For example, in the wellbeing domain of social connection, the CBAx allocates a dollar value of \$589 for every friend gained.

Agencies can use this value to assess the benefit of initiatives that may help create social connection which would otherwise be difficult to monetise and capture as part of a CBA.

- the Health Equity Assessment Tool designed to promote health equity in New Zealand by posing questions that enable assessment of policy, programme or service interventions for
- current or future impact on health inequalities (Signal, et al., 2008) (UK Office of Statistics, 2021).

More details on New Zealand's monitoring platforms and targets for wellbeing can also be found at Attachment 1.

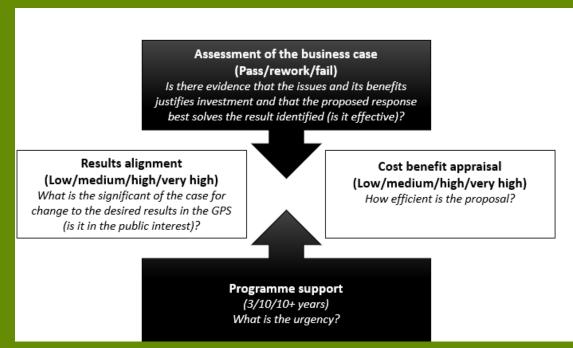
#### Box 2

# Aligning transport expenditure to strategic priorities

A key outcome of the 2010 New Zealand Transport Strategy was to develop an Integrated Assessment Framework (the framework) that aligned with wider Government planning frameworks. This was launched by the New Zealand Transport Agency in 2018 and is now used to prioritise projects for investment through the National Land Transport Fund.

The framework requires the agency to rate the ability of a project, from low to very high, to achieve strategic outcomes in the Government Policy Statement on Land, to determine whether a project is in the public interest, or not. The assessment is based on the key indicators within the LSF that are directly influenced by transport solutions. This work is then combined with a cost benefit appraisal with a project rated from low to very high, to determine its efficiency.

Figure 3. Investment Assessment Framework, modified from (Waka Kotahi New Zealand Transport Agency, 2018, p. 7)



# Part 3 - Existing wellbeing frameworks, prioritisation tools and methods

# Success beyond economic prosperity – wellbeing frameworks

The Brundtland Commission (1987) created the now familiar definition of sustainable development as:

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Over the last 40 years, these sustainability concepts, shaped around aspects of the five capitals model (Forum for the Future, 2014) and a social-ecological-systems understanding of wellbeing are challenging traditional measures of prosperity. There is an increasing recognition that countries and cities worldwide (at a range of scales from the individual through to global) cannot continue on the current path. The acceleration of biodiversity loss, climate change impacts and growing inequality (United Nations, 2015) are challenging economic prosperity as the principal goal for governments and the utility of the CBA and its variants in government decision-making. In the Economics of Biodiversity, the author speaks of how:

"The macroeconomics of growth and development continued to be built without Nature's appearance as an essential entity in our economic lives" (Dasgupta, 2021, p. 5)

International bodies, such the UN (United Nations, 2015) and the OECD (Smith, 2018), have established goals or frameworks for sustainability, prosperity and longevity. We discovered several monitoring frameworks (shown in Attachment 1) that countries and cities have developed or utilised to measure what is important to them beyond economic prosperity, such as the United Kingdom's Measuring National Wellbeing programme (UK Office of Statistics, 2021), Bhutan Gross National Happiness Index (United Nations, 2021), Sustainable Development Goals (United Nations, 2015), Better Life Index (Smith, 2018), and the Boston Consulting Group Sustainable Economic Development Assessment and Citizen Wellbeing framework (Boston Consulting Group, 2021) as well as the Doughnut Economics philosophy (Raworth, 2017) as outlined

30x 3

# Living within the doughnut

Kate Raworth created and explored a new framework for conceptualising economics, which shifts the focus from GDP growth to prosperity in the broader sense. Raworth argues the economic system exists within ecological and social systems and economic development should occur within the limits of these systems.

More specifically, Raworth contends that a nation's development must occur within two limits, no-one should fall within the central hole of the doughnut, by falling short of life's essentials; and secondly development activity should not push beyond the outer crust of the doughnut, by overloading ecological systems. Development therefore only occurs within the "safe and just space" of the doughnut.

in Box 3. The literature review highlighted many examples of countries and cities utilising the Doughnut Economics framework in particular.

Typically, these frameworks capture information on performance *after* it has occurred across a range of different capitals (lag indicators). Once established, these frameworks provide the ability to measure what is important beyond economic prosperity. These concepts and frameworks propose changes to the government and economic priorities and operating environments that were established with the Industrial Revolution. Mazzucato (2021) advocates that we must prioritise the economy's regenerative potential:

"Tackling grand challenges will only happen if we reimagine government as a prerequisite for restructuring capitalism in a way that is inclusive, sustainable and driven by innovation." (Mazzucato, 2021, p. 205).

Governments worldwide are grappling with a shifting focus from economic prosperity and productivity to more integrated measures of wellbeing. Karacaoglu (2021) highlighted the importance of considering wellbeing as part of government prioritisation in New Zealand and the need to transition away from the current process which has limitations in complex environments. The author commented that "At a system level, the whole purpose of public policy is to create resilience towards unknown unknowns by investing in shock absorbing and creative capacities, so that current and future generations can survive and thrive" (Karacaoglu, 2021, p. 32), demonstrating the requirement to include intergenerational timeframes in decision making.

While the above listed frameworks meet the requirements of MBIE in terms of providing a broader framework for considering success, the LSF fulfils the general aims of these frameworks. Indeed, the LSF is based on the OECD work (Smith, 2018). Generally, the literature was limited to how to establish success measures for a country or city rather than implementation of these concepts to prioritise government investment once a framework is established (e.g. Dasgupta (2021), Layard (2009) and Raworth (2017). One exception is the work being undertaken in the United Arab Emirates which is outlined in more detail in Box 4 (Grimes, 2021 and United Arab Emirates Government, 2021).

#### Box 4

### A focus on happiness

The United Arab Emirates (UAE) has committed to being one of the happiest nations in the world. The UAE Government now requires public policy submissions to be assessed against six happiness drivers and a qualitative assessment is undertaken with each initiative rated between 0 to 100 for each driver. Results across the happiness drivers are then averaged to achieve a Happiness Impact Assessment Score – multiplied by the length of time the impact will be achieved. The above process helps to inform expenditure decisions. The UAE Government has also invested heavily in governance and cultural change establishing cross departmental structures to ensure all plans and services consider wellbeing and has also structured wellbeing development opportunities for public servants at all levels.

#### **Prioritisation methods**

Given the desire of MBIE to investigate public initiative investment prioritisation methods (as opposed to just useful frameworks), our research examined in greater detail MCA, the wellbeing valuation approach and CBA.

#### Multi-criteria analysis

MCA is promoted as an alternate tool to CBA. In its simplest form, MCA assesses the ability of an initiative to achieve a set of goals. Each goal is weighted from lowest to highest importance, a weighted adjusted score is developed for each goal and these are then totalled for the particular initiative. The total weighted score for an initiative can then be compared against a range of options, for example, progress in this way, that way or do nothing at all (Dobes & Bennett, 2009). We found that the benefits of MCA are that it enables investment decisions to be considered against broad criteria from cost, environmental impact to employment outcomes. It is a flexible approach that can be varied to suit the needs of initiatives and organisations. Criticisms of MCA include that it is not sufficiently rigorous, the results of assessments are often not publicly available and there is concern about the strong influence of stakeholders in the development of the criteria, associated weighting and subsequent analysis (Dobes & Bennett, 2009).

#### Wellbeing valuation approach

An alternative prioritisation method was developed by the London School of Economics, which has adopted a wellbeing valuation approach to assign value to items that are typically difficult to quantify through a CBA, for example, arts and culture. This approach uses subjective wellbeing measures from national datasets. Marginal rates of substitution are then calculated to quantify the money that would be required to keep subjective wellbeing constant without a particular good. This approach requires large datasets, contains subjective assessment and would be very complex to administer without specialist skills (Fujiwara, et al., 2014). We note that it is possible, if not likely, that the Treasury has used this method in developing elements of the impacts database contained within the CBAx tool, especially those measuring social and cultural impacts which are more difficult to monetise (New Zealand Treasury, 2020). Overall, we consider there are barriers to broadly applying this method at a practitioner level given the complexity involved.

#### Cost benefit analysis

In light of the above, we considered whether a new approach is required to achieve the objectives sought by MBIE. What we found through our research is that CBA is a well-established way of assessing the merits of public initiatives and, if done well, enables the capture of all costs and benefits that can be monetised (Dobes, et al., 2016). Our research highlighted some of the underlying challenges of CBA (including using the CBAx tool). These include complexity, misuse, use at the wrong stage of an initiative, and that the more subjective elements of wellbeing are difficult to fully capture (Dobes, et al., 2016 and HM Treasury, 2021).

There are also an increasing number of critiques in the literature about CBA. While advocates say that CBA provides systematic, impartial and objective evaluations and evidence to enable decision-makers to compare alternatives, others contend that "CBA can be used to justify almost any conclusion" (Fischer, 1990, p. 168), and the inherent subjectivities are "at odds with this presentation of CBA as a rational, objective tool." (Markham, 2018, p. 1). Examples of these subjective judgements and assumptions include what should be included in a CBA as 'relevant' and how these items should be measured. Choices regarding discount rates also significantly affect the measurement of future costs and benefits, especially in longer-term horizons. The use of numbers and technical language in the CBA process has, therefore, be criticised as being used to "obscure...political decisions and judgments...by 'masking value choices', so deflecting challenges and reducing the potential for democratic resistance to or contestation of decisions" (Sinden, 2004, p. 210) as well as being a "barrier to participation by non-specialists, who are less able and perhaps

less willing to contest CBA's outputs than they might be to contest its underpinning values and assumptions, were these openly discussed" (Bebbington, et al., 2007, p. 228).

Despite these challenges, we found genuine attempts to make CBA a more well-rounded and effective tool, for example in the UK Green Book as outlined in Box 5 (HM Treasury, 2021).

#### Box 5

# Wellbeing in the UK 'Green Book'

In 2021, in what is considered a significant shift in policy, the United Kingdom Government released a Wellbeing Guidance for Appraisal: Supplementary Green Book Guidance to support public servants to think about wellbeing in the policy development process and importantly provide a step-by-step guide on how to incorporate wellbeing into project assessment and prioritisation. Through this work public servants are asked to use cost benefit analysis and include all costs and all benefits which can be monetised. Where costs or benefits cannot be fully monetised then 'social' CBA is recommended, and detailed guidance is provided on how to capture the impact and context in a qualitative and quantitative manner.

#### The use of judgement in decision-making

Following on from our discussion above about subjectivity and the masking of value choices, we also explored literature which focused on the nature of uncertainties when it comes to decision-making. There is a growing recognition of the need to supplement the false sense of security from quantification with robust narratives that enable decision-makers to manage uncertainty:

"Economists cannot tell policy-makers what decisions to make. But they can help them think about their problems and provide relevant information... The selection of relevant narratives is problem- and context-specific, so that the choice of fictions, numbers and models requires the exercise of judgement in relation to both problem and context. The narratives we seek to construct are neither true nor false, but helpful or unhelpful." (Kay & King, 2020, p. 397)

"Rethinking economics is not about finding the correct one [model] (because it doesn't exist); it's about choosing or creating one that best serves our purpose – reflecting the context we face, the values we hold, and the aims we have. As humanity's context, values and aims continually evolve, so too should the way that we envision the economy." (Raworth, 2017, pp. 19-20)

These perspectives have helped inform our approach and recommendations to emphasise qualitative analysis and to make assumptions explicit to enable better discussions and judgements by decision-makers.

# Part 4 - Key insights from interviews

The focus of our interviews was to gain further understanding of:

- the current thinking amongst academics and other experts in the area of wellbeing prioritisation
- the historical and current New Zealand context
- whether practitioners are using alternative methods to prioritise initiative investment
- different perspectives on the effectiveness of analytical tools, such as CBA and
- what it is going to take to achieve consistent consideration of wellbeing in investment decisions across agencies in New Zealand.

The purpose of the interviews was not to establish a holistic body of commentary about alternative methods of measuring wellbeing, but rather to elicit ideas and examples that we could apply to our research question.

#### Methods in practice

The practitioners we spoke to provided useful information on the processes they use to measure and track success beyond economic indicators, for example, application of the SDGs and Doughnut Economics. Most (particularly the ones from Australia) were at the very early stages of their work and were not yet able to provide details on how they might use this approach to prioritise initiative investment decisions into the future.

There were a few New Zealand government agencies we spoke to which had prioritisation tools of different levels of sophistication. For example, one agency undertakes an assessment of its initiatives using relevant LSF criteria and undertakes 'what if' scenario modelling to determine whether it should invest in one initiative over another. Only after it has determined which initiatives are best able to deliver on wellbeing outcomes, does it move to CBA to meet what it believes to be the Treasury's expectations.

This can be compared to a more sophisticated and publicly available prioritisation tool developed by another New Zealand agency (Waka Kotahi New Zealand Transport Agency, 2017) which has been developed taking into account relevant government statements, frameworks and elements of the LSF which are relevant to that particular portfolio area. This tool is also promoted and used widely by the agency for public initiatives within that portfolio area.

Another advanced example we encountered was from a Māori Trust, which has developed a tool to assess investment decisions. The tool was developed through a comprehensive process where the regional population was surveyed to identify wellbeing priorities. With the assistance of technical consultants, the results were analysed and triangulated to other research and a weighted analytical tool developed to prioritise investment decisions. Although the Trust was not in a position to share the tool with us, learning about the development process informed our recommendations.

#### Cost benefit analysis – supporters and detractors

We spoke with several New Zealand academics who articulated a strong case for CBA. The perspective they offered was that CBA is not flawed; it is the quality of its application that is problematic.

"Cost benefit analysis makes logical sense. Why would you do anything else?" (New Zealand academic, 2021)

They acknowledged that monetising wellbeing measures, which can be subjective, is inherently problematic. Their view was that a better understanding of CBA was required by current and future public servants. To address the common criticism of CBA being imprecise, their recommendations included running scenarios to test the robustness of results across each public initiative being considered for investment. They felt this was particularly important for initiatives where there are a number of costs and or benefits that are difficult to monetise. In terms of capturing costs and/or benefits that may not be realised until well into the future, they advised that CBA responds to this through the discount rate and a practitioner could apply a very low, zero or even a negative rate to achieve this aim.

Discussion on assumptions underpinning CBA highlighted that many people would prefer to receive a benefit now rather than at some point in the future and they challenged us as to whether it was ethical to value the wellbeing of a generation into the future at a higher level than current citizens and vice versa. The approach taken by Wales was highlighted to us, when considering future generations in government decision-making (Future Generations Commissioner for Wales, 2021). This approach is described in Box 6.

Others interviewed highlighted the inherent limitations and subjectivities involved in CBA and the need to make visible the assumptions and judgements being used in the calculations. This helps to enrich the transparency and discussion for decision-makers. Others were more sceptical about reducing aspects of wellbeing that are social, cultural and environmental to monetary values – especially using market valuations, because markets are not perfect, and are determined by power that is embedded within market transactions. They argued for a wider framework, such as that based on the capitals in the LSF, being used to screen public initiatives, with CBA being only one component of the decision-making matrix:

"Think of the four capitals as the groups of assets on your balance sheet, the nation's balance sheet. Your Profit and Loss (P&L) is your GDP measure, but for too long we've focused on the P&L and ignored the balance sheet. We've focused on the short term rather than the long term.

It's the assets on your balance sheets that drive your wellbeing – your current stock and generator of future wellbeing. The decision that you're making – what impact does it have on those four capitals? Is it in a good state that we can pass on?" (New Zealand practitioner, 2021).

# Ensuring future generations have a voice

In 2015, the Wellbeing of Future Generations (Wales) Act 2015 was enacted by the Senedd (the Welsh Parliament). The purpose of this Act is to require agencies by law to consider the impact of their decisions in the longer term and ensure that sustainable development occurs.

All agencies must improve the economic, social and cultural wellbeing of Welsh citizens (current and future) and address inter-generational challenges of climate change, poverty and disadvantage.

To support this Act, Wales has appointed a Future Generations Commissioner. Their role is to be the guardian for those not yet born and make sure their voice is considered by agencies. The role of the Commissioner is to raise the profile of future generations, encourage agencies to actively consider their needs and develop and promote best practice. At this point there is no ability for the Commissioner to overturn the decisions of agencies, if these are not in the interests of future generations.

Our interviews highlighted variable support for, and capacity to undertake CBA to inform government investment decisions.

#### How is the LSF being used in New Zealand?

With the LSF being used by the New Zealand Government to assess the success of the country, we were keen to hear perspectives on how well the LSF was understood and how actively it was being used by practitioners.

The New Zealand academics we spoke to shared their perspective that the LSF has been useful in providing public servants with a common language and putting a spotlight on wellbeing. However, at least one academic described the LSF as next to useless for initiative prioritisation and others stated that significant work is required to put the "living" back into the LSF. Criticisms included that the LSF needs more conceptual development and indicators need to be updated. They also highlighted that there are very limited, if any, targets within the LSF and that this was an area where further attention could be given to better inform and prioritise interventions by government. From their perspective, cultural change, central co-ordination and leadership was a pre-requisite to achieving any meaningful change across the New Zealand Government.

Some practitioners we spoke to considered the LSF to be very useful in helping the New Zealand Government establish priorities at the macro level, however, stated it was not possible, and perhaps not ever intended to be used to prioritise government investment at the micro or initiative-based level. They highlighted the CBAx tool and the incorporation of wellbeing domains and indicators within this, goes some way to operationalising the LSF. Other practitioners were more critical of the LSF and indicated that it is not practically useful for individual initiatives, as it was too theoretical and conceptual. In the view of these practitioners, there was also inconsistent understanding and application of it across agencies.

As set out above under 'Part 4: Methods in Practice', we did discover some agencies using the LSF to inform their decision-making. It is apparent that there is great interest in operationalising the LSF. Some agencies have genuinely tried to do so. Albeit from a small sample, what we observed was work being commissioned on an agency-by-agency basis with little central co-ordination. There appeared to be few examples of where this has been shared widely in a community of practice. External consultants appeared to be the major benefactors, with agencies engaging consultants with the goal of helping them to operationalise the LSF, with some of this investment not progressing the work any further.

Encouragingly almost everyone we spoke to saw the potential for our research to fill a gap and be useful. Many talked about the need for this work to gather momentum in their agencies and to understand how to connect this work to their local communities. It became clear to us that a change process would be needed to move from the status quo to something new.

"You can be an independent voice for change, given the outcomes we are trying to achieve for New Zealanders, we don't have a tool that is fit for purpose."

(New Zealand practitioner, 2021)

### Part 5 - Our findings

Based on the literature reviewed, and the range of academic and practitioner perspectives considered, we have categorised our findings into six key insights, along with recommendations for action.

OUR FINDING: There is a gap – there is no consistent or easy way for practitioners to use the LSF to help prioritise public initiatives.

No single new approach that fulfils the research request from MBIE was elicited from our research. Approaches like Doughnut Economics (Raworth, 2017) are useful ways of thinking about broader aspects of success for a country or city at a systemic or macro level, however, they currently do not provide a practical way to prioritise government investment decisions of one initiative over another. The LSF, based on the OECD framework, already fulfils what many of these alternative approaches are seeking to achieve at a macro level. It was clear that while the LSF already exists, there would be great value in enabling an applied understanding of the LSF by New Zealand public servants.

We found several examples of government agencies in New Zealand and worldwide which have developed practical ways to use these macro frameworks to inform prioritisation of public initiatives and government investment decisions. However, we were unable to find an 'off-the-shelf' solution that could be adopted by MBIE. There was also no consistent method or tool which is already used New Zealand practitioners to assess their public initiatives.

We formed a view that if MBIE truly wishes to consider wellbeing impacts in the prioritisation of government investment, this must be the first hurdle a public initiative meets. Our view is that if a public initiative does not satisfy this first hurdle then it should not be considered further by MBIE. We believe that the use of such a tool as a first step in any assessment of public initiatives will contribute to a cultural shift within government agencies where LSF considerations become a norm in all decision-making and planning processes.

We have developed a tool to support MBIE implement this proposed change to prioritisation of government investment. The proposed tool focuses on the impact of initiatives on the four capitals of the LSF, being New Zealand's natural, social, human, and financial and physical capitals. The four capitals are the stocks which are used to produce the flow of wellbeing and are, therefore, considered to be the key determinants of wellbeing for now and the future. The screening tool works to ensure that any initiatives which are undertaken, first and foremost, do not deplete but build (or at least have a neutral impact on) the resilience of the four capitals regardless of the benefits they may bring to one or more of the 12 domains of wellbeing in the short term. This is in recognition that protecting the four capitals are critical in safeguarding future wellbeing and respecting the intergenerational aspects of any initiative. We describe the tool in detail in Part 6. In developing this tool, we ensured it met the three criteria established at the commencement of our project i.e., it considered broad measures of success; was objective and transparent in its workings and easily applied by practitioners.

The tool is designed to augment rather than replace existing tools such as CBA (see also below) and is aimed at familiarising and, hopefully, habitualising New Zealand public servants with applying LSF considerations when developing public initiatives. Over time, it is anticipated that additional considerations (and thus complexities) could be introduced into the screening tool to improve its effectiveness. This may include:

 a consideration of the extent to which New Zealand is meeting its targets on relevant indicators, noting that New Zealand has so far only set very limited targets; and • incorporating an automated analytical component with pre-filled data (such as government priorities, LSF indicators, any future targets) which would make the process more streamlined and consistent.

It is anticipated that the WIST will also evolve to reflect changes to the LSF over time, for example, as the LSF becomes more closely aligned with Te Ao Māori values and SDGs.



Recommendation 1: Implement the use of a wellbeing impact screening tool, based on the LSF, when assessing and prioritising investment decisions.

OUR FINDING: There is still a place for existing assessment tools such as CBA, MCA and other existing bespoke agency prioritisation tools but practitioners need more training on how to apply these.

Depending on the significance of the public initiative, we have formed the view that the screening tool introduced above (which focuses on capitals) should only be a "first step" in an assessment process before a more ubiquitous analytical tool is utilised to enable a broader analysis (e.g. the LSF domains) to occur.

The use of analytical methods such as CBA and MCA, allow potentially broader evidence and considerations to be included into prioritisation and investment decisions. We have formed the view that it is less important which analytical tool is used, what is important is that the analytical tools are used effectively and consistently, with documented assumptions, to better aid decision-makers. Further, despite some legitimate challenges and criticisms of CBA, we have formed the view that it remains an effective and useful method, if done well and transparently, by which costs and benefits of initiatives can be consistently and systematically organised and analysed. Further, given the entrenched nature of CBA, we also acknowledge it is unlikely to be ousted from the toolkits of economists and practitioners (and governments) in the near future.

It is recommended that MBIE continues to use appropriate analytical mechanisms to consider the budget and cost effectiveness implications of each public initiative, especially where it is high value, high risk. MBIE should ensure that those using these tools have the appropriate skills and experience, including when and how to adopt low discount rates in appropriate circumstances. It is also important for users of these tools to understand the importance of transparency and the implications of the use of judgment in the process, and that they are supported to ensure costs and benefits are adequately captured.



Recommendation 2: Continue to use an appropriate analytical mechanism but ensure those using it have the appropriate skills and experience and that assumptions are clearly documented.

OUR FINDING: There is a lack of understanding of the LSF, including how it could be practically applied in day-to-day considerations, among New Zealand practitioners.

It became clear to us that while we could develop a solution for MBIE, that true change can only be achieved if a culture across the New Zealand Government is established, of truly valuing and understanding wellbeing and how to improve the use of evidence to inform government decision-making at the agency level. There is genuine interest and enthusiasm at an agency level and a real opportunity to achieve better decision-making through central agency leadership, governance and investment in thought leadership and professional development in wellbeing for public servants at all levels.

It is recommended that the New Zealand Government supports all agencies to better understand wellbeing, the LSF and its criticality in policy development and public expenditure decision-making

through the establishment of a centre of excellence such as an LSF Academy, and building a network of LSF champions.



Recommendation 3: Build the understanding and capacity of New Zealand government agencies to use and interact with the Living Standards Framework

OUR FINDING: There is a lack of coordination in the implementation and operationalisation of the LSF across the New Zealand Public Service.

Acknowledging there is a lead Minister (Minister of Finance) and lead agency (the Treasury) in relation to the LSF, it is recommended that the New Zealand Government also creates an interdepartmental structure – such as an interdepartmental executive board or interdepartmental venture – to enhance coordination and implementation of the LSF across the Public Service. The interdepartmental structure could also support the Treasury and the Minister in regularly reporting to Cabinet on the progress of the LSF and having a process to veto public initiatives that do not meet the hurdle of either a neutral or positive direction across all four LSF capitals. We believe this recommendation aligns well with the Public Service Act 2020, which has a focus on encouraging greater collaboration between agencies (New Zealand Parliament, 2020). This recommendation also aligns with the Auditor-General's recommendation (2021) where, in identifying a gap in leadership for the implementation of the SDGs and the 2030 Agenda, it was recommended that the Government identify appropriate governance arrangements to implement the SDGs, including assigning clear coordination and implementation responsibilities to government agencies.

If MBIE continued to be concerned about ensuring that future generations have a voice, another form of intervention like a future generations' guardian could be considered.



Recommendation 4: Establish an interdepartmental structure to improve the use of the Living Standards Framework

OUR FINDING: There is potential for the LSF to incorporate a broader range of indicators and targets, and better align with societal values and international obligations.

We also found that there is an opportunity to ensure the LSF and associated indicators are more fit for purpose. For example, we believe there could be greater consideration given to selecting indicators that enable comparison of progress against other countries. Further performance targets could be set for more LSF indicators which in turn could help to focus government investment, priority setting and ultimately tracking the success of New Zealand.

To this end, we recommend the LSF be regularly reviewed to ensure that the four capitals, 12 domains and supporting indicators continue to represent and evolve with developing societal values and are aligned with New Zealand's international obligations. In particular, the Auditor-General (2021) found that there was scope for the LSF to be further developed to better align with the SDGs and SDG targets, including its 2030 objectives as set out in the *Transforming our world: the 2030 Agenda for Sustainable Development* (2030 Agenda). Such an improved alignment would allow better comparisons to be carried out with other jurisdictions.



Recommendation 5: Continue to build on and develop the Living Standards Framework

OUR FINDING: There is potential for Te Ao Māori world views, values and culture to be better incorporated into wellbeing analysis and decision-making in New Zealand.

Finally, we came to the conclusion quite early in our project that it would be difficult to achieve MBIE's aspiration of a Māori enabling approach as this was a research project in its own right. The development and piloting of He Ara Waiora (New Zealand Treasury, 2021) will be an important step

towards integration of Te Ao Māori perspectives in wellbeing analysis and policy decision-making. Understanding and considering this framework in parallel with the LSF is recommended, as it is an emergent space. We note that building the capability of the Public Service to engage with Māori and to understand perspectives is now a requirement under section 14 of the *Public Service Act 2020* (New Zealand Parliament, 2020).

It is recommended that New Zealand government agencies consider greater incorporation of Te Ao Māori world views, values, and culture in wellbeing analysis and decision-making. As a start, this can be done by understanding and exploring the application of He Ara Waiora (New Zealand Treasury, 2021) in conjunction with the LSF and other analytical methods (such as CBA or MCA).



Recommendation 6: Explore ways to ensure greater incorporation of Te Ao Māori world views, values and culture in wellbeing analysis and decision-making

# Part 6 - Wellbeing Impact Screening Tool (WIST)

#### What is the WIST?

The WIST is a form of multi-criteria analysis, where achievement against relevant LSF indicators, stated priorities of Government and degree of impact are the criteria that public initiatives are assessed against.

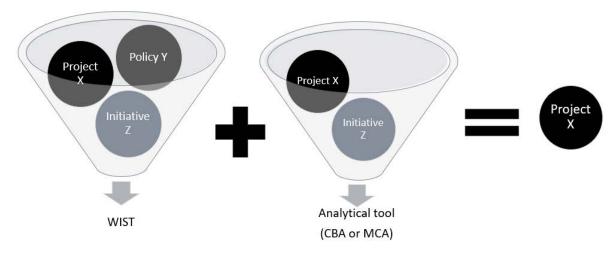
It is based on three principles:

- Consistency: all initiatives are assessed against the four capitals of the LSF
- Impact: all initiatives must have positive or neutral impacts on all four LSF capitals
- Transparency: any assumptions and judgements made when using the WIST must be captured.

The WIST is designed to consider:

- an initiative that may arise anytime during the year
- unsolicited bids by organisations seeking government investment
- multiple initiatives that need to be prioritised for example through the annual budget process. The use of the WIST in this way is outlined in Figure 4.

Figure 4 Assessing multiple initiatives with the WIST



The WIST guide is included as Attachment 2.

#### How is the WIST used?

The key steps of the WIST are outlined below in Figure 5.

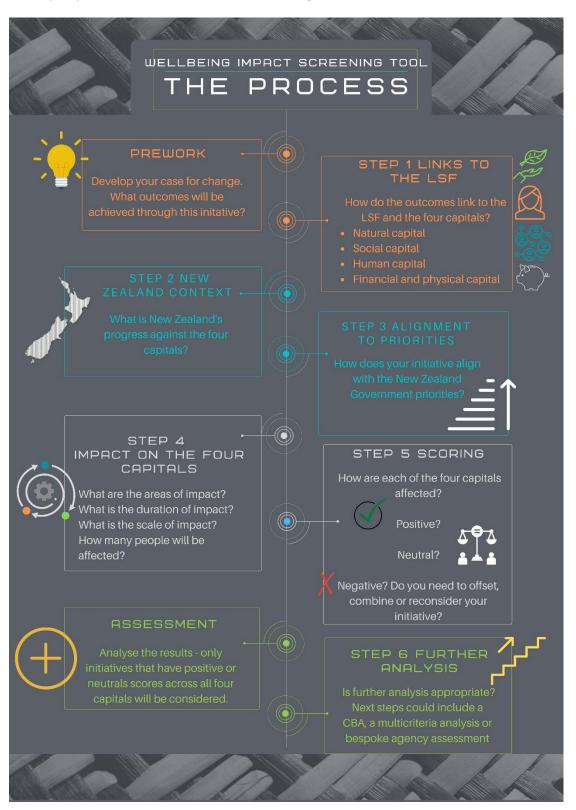


Figure 5 – Steps in the WIST process

The most important element of the WIST is ensuring all assumptions and judgement exercised have been clearly documented so this is transparent and can be used to explain investment decisions in the future. This is critical as a WIST could be completed perfectly by two practitioners, but vastly different conclusions could be drawn.

#### Assessment

If a WIST is completed for a single public initiative or an unsolicited bid this should be forwarded to the decision maker for them to consider whether any other form of assessment is required in line with agency processes.

Where there are multiple public initiatives to prioritise, for example at budget time, these should be forwarded to the assessor(s). The assessor(s) should review scoring and moderate if they believe the base datasets or assumptions are not appropriate. Any changes made by the assessor(s) to the original score should be well documented to support wider governance. With the WIST assessment finalised by the assessor(s), public initiatives that have been identified as positive or at least neutral in their impact against the LSF can be subsequently assessed against normal agency processes i.e., CBA, MCA or similar.

#### Part 7 - Recommendations

Our research has led us to make recommendations for MBIE, in particular, recommendations 1 and 2. While those recommendations could be adopted in isolation by MBIE, it would be more impactful if these were, with the support of the Treasury, adopted by all New Zealand government agencies. The broader adoption of recommendations 1 and 2 as well as recommendations 3 to 6 will need the support of the Treasury and the Minister for Finance as the lead agency and Minister for the LSF, to be effective. We believe that our findings and recommendations are consistent with the work currently being carried out by the Treasury (in reviewing the LSF in the context of Te Ao Māori values and SDGs) and the wellbeing-related reforms of the New Zealand government and build upon the progress New Zealand has taken to date. Nevertheless, MBIE will have to work closely with the Treasury in the implementation of the recommendations below to ensure that the full impact of our recommendations come to fruition.

**Recommendation 1**: Implement the use of a wellbeing impact screening tool, based on the Living Standards Framework, when assessing and prioritising investment decisions.

**Recommendation 2:** Continue to use an appropriate analytical mechanism but ensure those using it have the appropriate skills and experience and that assumptions are clearly documented.

**Recommendation 3:** Build the understanding and capacity of New Zealand government agencies to use and interact with the Living Standards Framework

**Recommendation 4:** Establish an interdepartmental structure to improve the use of the Living Standards Framework

**Recommendation 5:** Continue to build on and develop the Living Standards Framework

**Recommendation 6:** Explore ways to ensure greater incorporation of Te Ao Māori world views, values and culture in wellbeing analysis and decision-making.

#### **Conclusion**

Our research led us to a greater understanding of the existing approaches used in New Zealand and internationally in assessing and prioritising wellbeing objectives. As captured in the famous Māori expression – 'He aha te mea nui o te ao, he tangata he tangata he tangata' – these approaches go some way to recognise that the Government needs to support people to lead flourishing lives and that these lives are interconnected to the finite wellbeing of the economy and the environment.

There is a clear gap between New Zealand's macro level wellbeing frameworks and application of these at an agency level when prioritising investment in public initiatives. The WIST has been developed to provide a practical step forward for MBIE and other New Zealand government agencies to better operationalise the LSF and prioritise their investment decisions in line with wellbeing objectives — now and into the future. This tool has been developed as a first step for others to build from as the LSF matures and capacity across the New Zealand Government increases in wellbeing analysis and prioritisation.

"Be okay with the fact that you are not going to solve this today, but improving this work and taking a step forward for others to continue would go a long way to contributing to the whakapapa of this important work." (New Zealand practitioner, 2021)

# References

Ardern, J., 2018. *The 100 day plan and beyond: setting the direction of the Government.* [Online] Available at: <a href="https://www.beehive.govt.nz/speech/100-day-plan-and-beyond-setting-direction-government">https://www.beehive.govt.nz/speech/100-day-plan-and-beyond-setting-direction-government</a>

Ardern, J., 2019. Prime Minister's Wellbeing Budget speech [Interview] (30 May 2019).

Australian Government, Department of Prime Minister and Cabinet, 2015. How good policy is made: The Australian Government guide to regulation with rigour RIA MOOC. [Online]

Available at: <a href="https://www.pmc.gov.au/ria-mooc">https://www.pmc.gov.au/ria-mooc</a>
[Accessed 16 October 2021].

Bebbington, J., Brown, J. & Frame, B., 2007. Accounting Technologies and Sustainability Assessment Models. *Ecological Economics*, Volume 61, pp. 224-236.

Boston Consulting Group, 2021. *Sustainable Economic Development Assessment and Citizen Wellbeing*. [Online]

Available at: <a href="https://www.bcg.com/industries/public-sector/sustainable-economic-development-assessment">https://www.bcg.com/industries/public-sector/sustainable-economic-development-assessment</a>

[Accessed 20 June 2021].

Brundtland, G., 1987. Report of the World Commission on Environment and Development: Our Common Future, s.l.: United Nations General Assembly document a/42/427.

Colebatch, H., 2009. Chapter 3 - What's Going On?. In: *Policy*. Maidenhead: Open University Press, pp. 23-46.

Controller and Auditor-General, 2021. The Government's preparedness to implement the sustainable development goals. [Online]

Available at: <a href="https://oag.parliament.nz/2021/sdgs/docs/sustainable-dev-goals.pdf">https://oag.parliament.nz/2021/sdgs/docs/sustainable-dev-goals.pdf</a> [Accessed 19 September 2021].

Dalziel, P., Saunders, C. & Catherine, S., 2019. *Culture, Wellbeing, and the Living Standards Framework: A Perspective,* Wellington: Ministry for Culture and Heritage.

Dasgupta, P., 2021. *The Economics of Biodiversity: The Dasgupta Review. Abridged Version.,* London: HM Treasury.

Davies, C., 2018. Wellbeing Valuation of Social Housing Provision by Housing New Zealand, Wellington: Housing New Zealand.

Dobes, L. & Bennett, J., 2009. *Multi-Criteria Analysis: "Good Enough" for Government Work?.* [Online]

Available at: <a href="http://epress.anu.edu.au/agenda/016/03/pdf/01.pdf">http://epress.anu.edu.au/agenda/016/03/pdf/01.pdf</a>. 16. 10.22459/AG.16.03.2009.01 [Accessed 8 August 2021].

Dobes, L., Leung, J. & Argyrous, G., 2016. *Social Cost-Benefit Analysis in Australia and New Zealand 1st ed,* Canberra: Australian National University Press.

Energy Storage Association, 2019. *Pumped Hydroectric Storage*. [Online] Available at: <a href="https://web.archive.org/web/20190119150459/http://energystorage.org/energy-">https://web.archive.org/web/20190119150459/http://energystorage.org/energy-</a>

storage/technologies/pumped-hydroelectric-storage/ [Accessed 16 October 2021].

Fischer, F., 1990. Technocracy and the Politics of Expertise. London: Sage Publications.

Forum for the Future, 2014. *The five capitals model - a framework for sustainability*. [Online] Available at: <a href="https://www.forumforthefuture.org/Handlers/Download.ashx?IDMF=8cdb0889-fa4a-4038-9e04-b6aefefe65a9">https://www.forumforthefuture.org/Handlers/Download.ashx?IDMF=8cdb0889-fa4a-4038-9e04-b6aefefe65a9</a> [Accessed 21 July 2021].

Fujiwara, D., Kudrna, L. & Dolan, P., 2014. *Quantifying and Valuing the Wellbeing Impacts of Culture and Sport*, UK: Department for Culture and Sport.

Future Generations Commissioner for Wales, 2021. Well-being of Future Generations (Wales) Act 2015. [Online]

Available at: <a href="https://www.futuregenerations.wales/about-us/future-generations-act/">https://www.futuregenerations.wales/about-us/future-generations-act/</a> [Accessed 8 August 2021].

Goodwin, K., 2021. *Designing the Doughnut: A Story of Five Cities*. [Online] Available at: <a href="https://matchboxstudio.medium.com/designing-the-doughnut-a-story-of-five-cities-8bad04ded5e3">https://matchboxstudio.medium.com/designing-the-doughnut-a-story-of-five-cities-8bad04ded5e3</a> [Accessed 16 October 2021].

Government of New Zealand, 2021. *Wellbeing Budget 2021,* Wellington: Government of New Zealand.

Grimes, A., 2021. Chapter 17: - Budgeting for Wellbeing. In: B. Searle, J. Pykett & M. Alfaro-Simmonds, eds. *A Modern Guide to Wellbeing Research*. s.l.:Edward Elgar, pp. 266-281.

HM Treasury, 2021. Wellbeing Guidance for Appraisal: Supplementary Green Book Guidance. [Online]

Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1005388/Wellbeing\_guidance\_for\_appraisal\_-\_supplementary\_Green\_Book\_guidance.pdf [Accessed 13 September 2021].

Institution of Civil Engineers, 2018. *Hydroelectric power New Zealand*. [Online] Available at: <a href="https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/hydroelectric-power-new-zealand">https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/hydroelectric-power-new-zealand</a> [Accessed 16 October 2021].

Interim Climate Change Committee, 2019. *Accelerated electrification - Evidence, Analysis and Recommendations*, Wellington: Government of New Zealand.

Karacaoglu, G., 2021. *Love you: Public Policy for Intergenerational Wellbeing.* 1 ed. Wellington: Tuwhiri Project.

Kay, J. & King, M., 2020. *Radical Uncertainty: Decision-making beyond the numbers*. New York: W. W. Norton & Company.

Kinderman, P., 2015. Why are governments interested in our wellbeing?. [Online] Available at: <a href="https://www.weforum.org/agenda/2015/09/why-are-governments-interested-in-our-wellbeing/">https://www.weforum.org/agenda/2015/09/why-are-governments-interested-in-our-wellbeing/</a>

Kubiszewski, I., 2014. Beyond GDP: are there better ways to measure well-being?, Canberra: s.n.

Layard, R., 2009. Why subjective well-being should be the measure of progress. Busan, Korea, OECD World Forim: charting progress, building visions, improving life..

Markham, J. C., 2018. No more than comfort?: A logics approach to the 'grip' of cost-benefit analysis in a New Zealand public policy decision, Wellington: Victoria University of Wellington.

Mazzucato, M., 2021. *Mission Economy: A moonshot guide to changing capitalism.* London: Allen Lane.

MBIE, 2020. Financial Commentary. [Online]

 $Available\ at: \underline{https://www.mbie.govt.nz/about/who-we-are/corporate-publications/annual-publications/an$ 

reports/annual-report-2019-20/financial-commentary/

[Accessed 24 September 2021].

MBIE, 2021. Who we are. [Online]

Available at: https://www.mbie.govt.nz/about/who-we-are/our-structure/

[Accessed 25 July 2021].

Meredith, S., 2021. Amsterdam bet its post-COVID recovery on 'doughnut' economics - more cities are now following suit. [Online]

Available at: <a href="https://www.cnbc.com/2021/03/25/amsterdam-brussels-bet-on-doughnut-economics-amid-covid-crisis.html">https://www.cnbc.com/2021/03/25/amsterdam-brussels-bet-on-doughnut-economics-amid-covid-crisis.html</a>

[Accessed 16 October 2021].

Ministry for Women, 2021. Welcome to Bringing Gender In. [Online]

Available at: https://women.govt.nz/gender-tool

[Accessed 18 September 2021].

Ministry of Business, Innovation and Employment, 2021a. NZ Battery Project. [Online]

Available at: https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/low-

emissions-economy/nz-battery/

[Accessed 16 October 2021].

Ministry of Business, Innovation and Employment, 2021b. *NZ Battery Project Media Statement*.

Available at: <a href="http://createsend.com/t/r-28926ED483DF17062540EF23F30FEDED">http://createsend.com/t/r-28926ED483DF17062540EF23F30FEDED</a> [Accessed 16 October 2021].

Ministry of Social Development, 2018. *Improving the wellbeing of children and young people in New Zealand*, Wellington: Ministry of Social Development.

New Zealand Government, 2019. The Wellbeing Budget, Wellington: Government Printer.

New Zealand Parliament, 2020. *Public Service Act 2020*. [Online] Available at: <a href="https://www.legislation.govt.nz/act/public/2020/0040/latest/LMS106159.html">https://www.legislation.govt.nz/act/public/2020/0040/latest/LMS106159.html</a> [Accessed 26 September 2021].

New Zealand Treasury, 2015. *Guide to Social Cost Benefit Analysis*. [Online] Available at: <a href="https://www.treasury.govt.nz/sites/default/files/2015-07/cba-guide-jul15.pdf">https://www.treasury.govt.nz/sites/default/files/2015-07/cba-guide-jul15.pdf</a> [Accessed 16 October 2021].

New Zealand Treasury, 2019. Living Standards Framework: Dashboard. [Online]

Available at: https://lsfdashboard.treasury.govt.nz/wellbeing/

[Accessed 22 October 2021].

New Zealand Treasury, 2019. Living Standards Framework: Dashboard Update. [Online]

 $Available\ at:\ \underline{https://www.treasury.govt.nz/publications/tp/living-standards-framework-dashboard-living-standards-fra$ 

<u>update</u>

[Accessed 16 October 2021].

New Zealand Treasury, 2019. *The New Zealand Living Standards Framework*. [Online] Available at: <a href="https://www.treasury.govt.nz/publications/dp/dp-18-06-html#section-1">https://www.treasury.govt.nz/publications/dp/dp-18-06-html#section-1</a> [Accessed 25 July 2021].

New Zealand Treasury, 2020. CBAx Tool User Guidance: Guide for departments and agencies using Treasury's CBAx tool for cost benefit analysis. [Online]

Available at: <a href="https://www.treasury.govt.nz/sites/default/files/2020-12/cbax-guide-dec20.pdf">https://www.treasury.govt.nz/sites/default/files/2020-12/cbax-guide-dec20.pdf</a> [Accessed 18 September 2021].

New Zealand Treasury, 2020. The Treasury CBAx Tool. [Online]

Available at: <a href="https://www.treasury.govt.nz/information-and-services/state-sector-">https://www.treasury.govt.nz/information-and-services/state-sector-</a>

leadership/investment-management/plan-investment-choices/cost-benefit-analysis-including-

<u>public-sector-discount-rates/treasurys-cbax-tool</u>

[Accessed 9 September 2021].

New Zealand Treasury, 2021. He Ara Waiora. [Online]

Available at: <a href="https://www.treasury.govt.nz/information-and-services/nz-economy/higher-living-standards/he-ara-waiora">https://www.treasury.govt.nz/information-and-services/nz-economy/higher-living-standards/he-ara-waiora</a>

Nou, J., 2008. Regulating the Rulemakers: a proposal for deliberate cost-benefit analysis. *Yale Law & Policy Review*, 26(2), pp. 601-644.

Ormsby, J; The New Zealand Treasury, 2018. *The relationship between the Sustainable Development Goals and the Living Standards Framework.* [Online]

Available at: <a href="https://www.econstor.eu/handle/10419/205379">https://www.econstor.eu/handle/10419/205379</a>

[Accessed 15 September 2021].

Public Service Commission, 2002. *Ideal features of sound intervention logic.* [Online]

Available at: <a href="https://www.publicservice.govt.nz/resources/op16/?e343=2556-ideal-features-of-sound-intervention-">https://www.publicservice.govt.nz/resources/op16/?e343=2556-ideal-features-of-sound-intervention-</a>

<u>logic#:~:text=Intervention%20logic%20is%20the%20rationale,on%20their%20selection%20of%20activities.</u>

[Accessed 16 October 2021].

Purdue, D., 2018. MBIE Chief Economist Presentation - 2018 Productivity Conference. s.l., s.n.

Raworth, K., 2017. *Doughnut Economics: Seven ways to think like a 21st century economist.* Great Britain: Chelsea Green Publishing.

Signal, L., Martin, J., Cram, F. & Robson, B., 2008. *The Health Equity Assessment Tool: A user's guide,* Wellington: Ministry of Health.

Sinden, A., 2004. The Economics of Endangered Species: why less is more in the economic analysis of critical habitat designations. *Harvard Environmental Law Review*, Volume 28, pp. 129-214.

Smith, C., 2018. *Treasury Living Standards Dashboard: Monitoring Intergenerational Wellbeing,* Wellington: Kōtātā Insight.

Söderbaum, P., 2004. Decision Processes and Decision-making in Relation to Sustainable Development and Democracy - Where Do We Stand?. *Journal of Interdisciplinary Economics*, 15(1), pp. 41-60.

Southern Rivers Catchment Management Authority, 2013. *Catchment Action Plan 2013-2023*, s.l.: State Government of New South Wales.

Sturgeon, N., 2019. Why governments should prioritize wellbeing. [Online] Available at:

https://www.ted.com/talks/nicola sturgeon why governments should prioritize well being/trans cript

Te Puni Kōkiri and the Treasury, 2019. *An Indigenous Approach to the Living Standards Framework,* Wellington: New Zealand Government.

Te Puni Kōkiri, 2019. *An Indigenous Approach to the Living Standards Framework.* [Online] Available at: <a href="https://www.treasury.govt.nz/publications/dp/dp-19-01-html">https://www.treasury.govt.nz/publications/dp/dp-19-01-html</a> [Accessed 26 September 2021].

UK Office of Statistics, 2021. *Measures of National Well-being Dashboard*. [Online] Available at:

 $\frac{https://www.ons.gov.uk/people population and community/well being/articles/measures of national well being dashboard/2018-04-25$ 

[Accessed 26 October 2021].

United Arab Emirates Government, 2021. Happiness. [Online]

Available at: <a href="https://u.ae/en/about-the-uae/the-uae-government/government-of-future/happiness">https://u.ae/en/about-the-uae/the-uae-government/government-of-future/happiness</a> [Accessed 10 September 2021].

United Nations, 2015. *Transforming our work: the 2030 Agenda for Sustainable Development,* New York: United Nations.

United Nations, 2021. *Gross National Happiness Index*. [Online] Available at: <a href="https://sustainabledevelopment.un.org/partnership/?p=2212">https://sustainabledevelopment.un.org/partnership/?p=2212</a> [Accessed 16 October 2021].

Waka Kotahi New Zealand Transport Agency, 2017. *Integrated Assessment Framework for the 2018-2021 Transport,* Wellington: Government of New Zealand.

Waka Kotahi New Zealand Transport Agency, 2018. *Investment Assessment Framework for the 2018-21 National Land Transport Programme*, Wellington: New Zealand Transport Agency.

Weijers, D. & Morrison, P. S., 2018. Wellbeing and Public Policy: Can New Zealand be a leading light for the 'wellbeing approach'?. *Policy Quarterly*, November, 14(4), pp. 3-12.

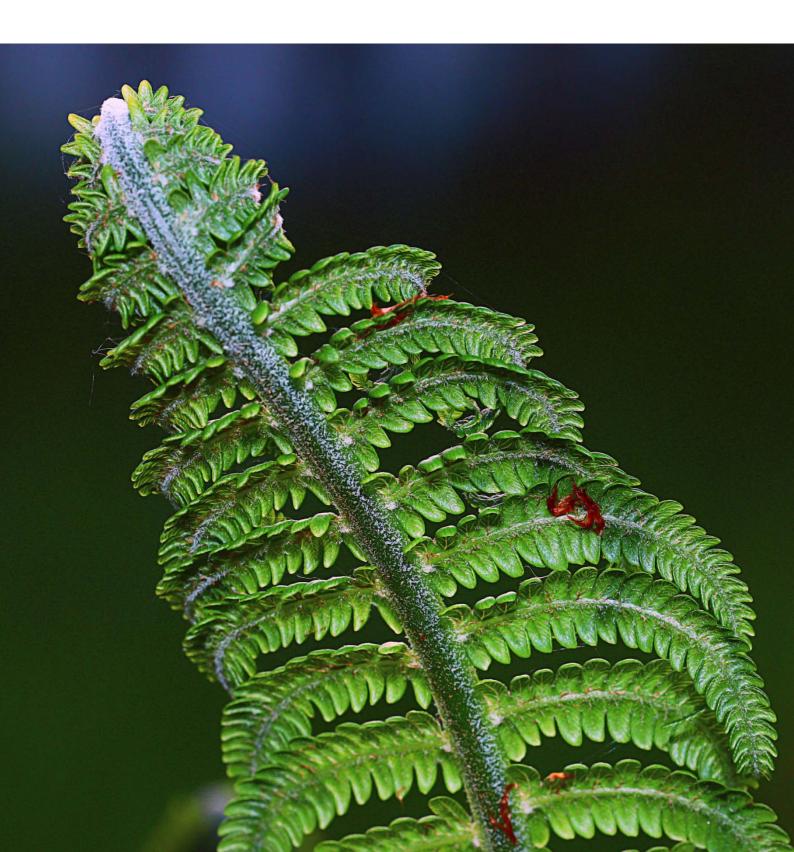
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Inside cover - Miss Taipa plaiting tieke published in 'Māori foods: Kiekie - School Journal 1968, Helen Buttfield https://www.flickr.com/photos/archivesnz/48116445978/in/album-72157704927015261/, CC BY 2.0, <a href="https://commons.wikimedia.org/w/index.php?curid=98511955">https://commons.wikimedia.org/w/index.php?curid=98511955</a>

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# **Glossary**

**Agency:** An encompassing term to include all organisations included in the New Zealand government.

**Benefits:** Are opportunities that could be realised. Common benefit categories in a cost-benefit analysis are savings or avoided costs, Government revenues, consumer surplus, producer surplus, labour surplus or benefits to the broader community (NSW Government The Treasury, 2017).

**Capitals:** A means of production (i.e. the capitals are the stock of ingredients we use to produce the future flow of wellbeing (New Zealand Treasury, 2019). The New Zealand Treasury uses four capitals (natural capital, financial/physical capital, social capital, and human capital).

Cost-benefit analysis: is a shortened version of social-cost benefit analysis.

**Financial/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 (New Zealand Treasury, 2019).

**Human capital:** The capabilities and capacities of people to engage in work, study, recreation and social activities. Includes skills, knowledge, physical and mental health (New Zealand Treasury, 2019).

**Initiative:** A new policy, programme, process or project to achieve something or solve a problem.

**Living Standards Framework:** A framework developed by the New Zealand Treasury in 2018 to help guide a wellbeing approach to public policy and expenditure decisions. Consists of four capitals and twelve domains of wellbeing.

**Long-time horizons:** The relevant timeframe should be determined by the period over which impacts are typically expected (Dobes, et al., 2016), nevertheless time periods beyond 30-50 years are often considered to be long-time horizons.

**Multi-criteria analysis**: a set of 'impacts' or 'goals' to be achieved by an initiative are identified. A score is assigned to each predicted impact on the extent of the effect and measured in a range of units. The scores are adjusted by multiplying them by subjective weights. The scores are standardised and summed to indicate net benefit (Dobes & Bennett, 2009, p. 13).

**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 (New Zealand Treasury, 2019).

**Non-monetised:** These are items, effects or impacts that cannot be quantified in monetary terms or are very difficult to express in monetary terms. Examples include social and cultural considerations, safety, national defense or environmental impacts (Australian Government, Department of Prime Minister and Cabinet, 2015)

**Practitioner:** A person who is engaged in the practice of a profession or an occupation.

**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 (New Zealand Treasury, 2019).

**Social cost benefit analysis:** An assessment of proposed public initiatives to determine whether their social benefits exceed their social costs (Dobes, et al., 2016). The analysis is undertaken from a national perspective (New Zealand Treasury, 2015). The analysis captures social, economic and environmental impact on social welfare.

**Social-ecological system:** An area with broadly consistent social, economic and environmental characteristics and therefore a useful unit for planning and decision-making (Southern Rivers Catchment Management Authority, 2013).

Wellbeing: When people lead fulfilling lives with purpose, balance and meaning to them.

### **Acknowledgements**

Like assessing future benefits of government investment, undertaking this research, and developing this report has been complex and has drawn on a wide range of knowledge and expertise. It has been a highly collaborative project and it would not have been possible without the willing input of many people. We thank Amanda Wolf, Richard Sullivan, the practitioners, and academics who provided such valuable insights into the project and our loved ones, who looked after our wellbeing throughout.

# Attachment 1 – Frameworks, monitoring platforms and targets for measuring wellbeing

#### Frameworks for measuring wellbeing

Frameworks	Jurisdiction	Description
Sustainable Development Goals (SDGs)	International UN	The SDG framework was developed by the UN and sets 17 goals and 169 targets by which UN Member States have agreed to work towards achieving by 2030. They include measures relating to poverty, hunger, health, education, equality, clean water, clean energy, economic growth, climate change, justice, etc.
Human Development Index (HDI)	International (United Nations Development Programme (UNDP))	The HDI covers 177 countries (Kubiszewski, 2014) and is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living.
Better Life Index (BLI)	OECD	The BLI covers the 36 OECD countries (Kubiszewski, 2014). Measures includes housing, income, jobs, community, education, environment, civic engagement, health, life satisfaction, safety and work-life balance.
Measuring National Wellbeing programme (MNWP)	United Kingdom	The Office for National Statistics leads the MNWP and has developed a well-being framework that includes multiple dimensions of life, including health, relationships, work, the natural environment, and political participation.
Gross National Happiness Index (GNH)	Bhutan	The GNH is developed from 33 indicators categorised under nine domains including psychological wellbeing, health, education, time use, cultural diversity and resilience, good governance, community vitality, ecological diversity and resilience, and living standards.
Well-being of Future Generations	Wales (UK)	The Act establishes the role of the Future Generations Commissioner for Wales. The Commissioner must promote the sustainable development principle, act as the guardian of future generations and encourage public bodies to think of the long-term effect of their decisions.

Frameworks	Jurisdiction	Description
(Wales) Act 2015 (Act)		
Measures of Australia Progress (MAP)	Australia	Led by the Australian Bureau of Statistics, the MAP measures 26 indicators related to society, economy, environment and governance, in determining the question 'Is life in Australian getting better?' The funding for MAP was discontinued in 2014 (Kubiszewski, 2014).
Doughnut Economics/ Doughnut Economics Action Lab	Independent/ Various	This framework was developed by Kate Raworth (2017) (see Box 3).  The framework has since been applied by many cities around the world, including Amsterdam, Brussels, Nanaimo, Melbourne (Goodwin, 2021) (Kubiszewski, 2014) and (Meredith, 2021)
Happy Planet Index (HPI)	Independent (formerly a project of New Economics Foundation which is a not-for-profit)	The HPI's calculation is based on subjective wellbeing multiplied by life expectancy multiplied by inequality of outcomes divided by ecological footprint.
Canadian Index of Wellbeing (CIW)	Independent (University of Waterloo, Canada)	The CIW tracks changes over eight domains including community vitality, democratic engagement, education, environment, healthy population, leisure and culture, living standards and time use. The domains were developed out of a public consultation process by which Canadians were asked to identify what was important to the quality of their lives.
World Happiness Report (WHR)	Independent (The WHR is a publication of the Sustainable Development Solutions Network)	Data for the WHR is sourced from Gallup World Poll surveys based on answers relating to the main life evaluation questions asked in the poll.

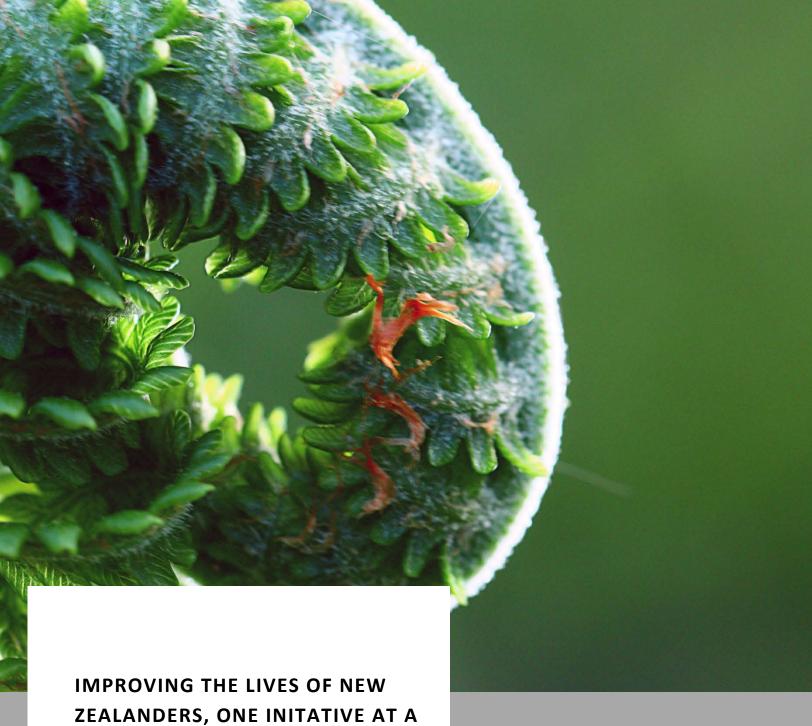
Frameworks	Jurisdiction	Description
Sustainable Economic Development Assessment (SEDA)	Corporate (Boston Consulting Group (BCG))	SEDA is a proprietary diagnostic tool designed by BCG to measure a country's sustainable economic growth and citizen wellbeing. It combines data on outcomes, such as for health and education, with quasi-objective data, such as governance assessments.
Australian Unity Wellbeing Index (AUW)	Corporate (Australian Unity, in partnership with Deakin University)	The AUW is based on surveys of average levels of satisfaction with aspects of personal and national life.  Personal Wellbeing Index elements include satisfaction with: health, personal relationships, safety, standard of living, life achievements, belonging, future security. National Wellbeing Index elements include satisfaction with: national social conditions, economic situation, environment, business, national security and government.

# New Zealand monitoring platforms and targets for wellbeing

Description	Details
Monitoring platforms	<ul> <li>New Zealand has two monitoring platforms which record a variety of wellbeing measures:</li> <li>the LSF dashboard which is led by the Treasury.</li> <li>Nga Tutohu Aotearoa – Indicators Aotearoa New Zealand (IANZ) which is led by Statistics New Zealand (Stats NZ)</li> </ul>
	The IANZ contain approximately 100 indicators which measure a range of social, environmental, and economic factors (Controller and Auditor-General, 2021). These indicators were developed after public consultation on what factors New Zealanders considered were important to their wellbeing. The LSF dashboard, which has 65 indicators, draws most of its data source (39) from IANZ.  New Zealand only has the following two targets relating to the wellbeing indicators it monitors:  • the reduction of child poverty, as required under the <i>Child Poverty Reduction Act 2018</i> . StatsNZ is required to report annually on progress towards this target under the act.  • the reduction of greenhouse gas emissions, as required under the <i>Climate Change Response Act 2002</i> (Controller and Auditor-General, 2021).

Description	Details
Other wellbeing obligations	<ul> <li>The obligations to take into account wellbeing considerations are also imposed by the following:         <ul> <li>The Local Government Act 2002 sets out the purpose of councils to promote social, economic, environmental and cultural wellbeing of communities.</li> <li>The Government Procurement Rules (4<sup>th</sup> edition) requires agencies to consider broader environmental, social, economic and cultural outcomes. The rules also require consideration of potential costs and benefits to society, the environment and economy.</li> <li>Guidance on developing Cabinet papers which asks agencies to consider how their policies impact on human rights and climate change, for different population groups (Controller and Auditor-General, 2021).</li> </ul> </li> </ul>

Attachment 2 - Wellbeing Impact Screening Tool (WIST)



TIME

GUIDE TO USING THE WELLBEING IMPACT SCREENING TOOL

**NOVEMBER 2021** 



Kia whaihua mō te oranga

Meet the team

#### Introduction

#### What is the Wellbeing Impact Screening Tool?

The Wellbeing Impact Screening Tool (WIST) allows initiatives to be assessed against New Zealand's Living Standards Framework (LSF) to ensure they meet a minimum threshold of sustaining the LSF's four capitals prior to considering budget and cost effectiveness implications, through processes such as cost benefit analysis. The reason this is important to us is that the ultimate success of New Zealand as a nation is much more than economic growth and we need to consider a broader range of factors when making government investment decisions. The WIST is designed to be used for:

- an idea for an initiative that may arise anytime during the year
- unsolicited bids by organisations seeking investment from the agency
- multiple initiatives that need to be prioritised for example through our annual budget process.

#### When should the WIST be used?

The WIST is a screening tool to be used prior to undertaking other processes such as cost benefit analysis that help further inform investment decisions. It is designed to be flexible enough for big or small initiatives. The key is to use the WIST early to ensure initiatives are contributing to wellbeing from the outset, for example:

- at inception and initiative design thinking
- after drafting the case for change
- as part of your initial assessment process.

#### How should the WIST Guide be used?

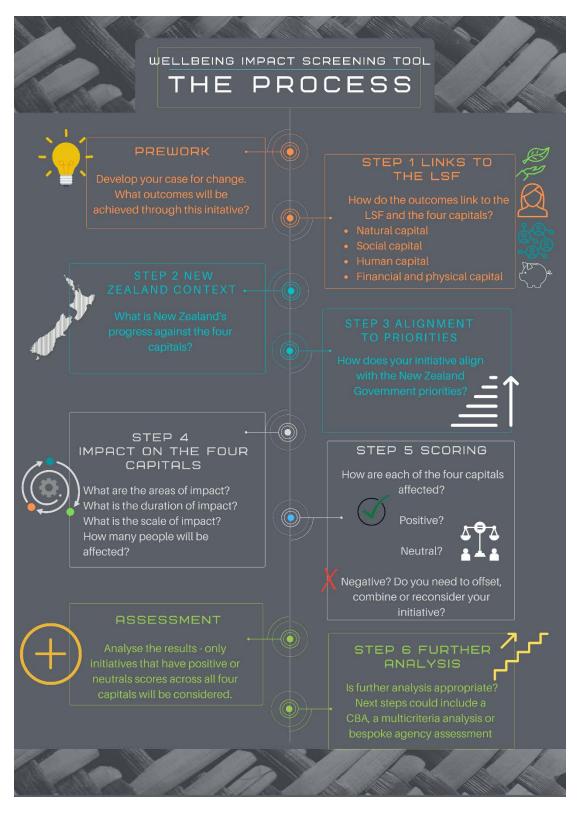
This guide is designed to step you through the WIST process and provide guidance on how the WIST could be applied. It sets out the steps to assess an initiative against the LSF, including a review process if multiple initiatives are being prioritised against each other.

#### **Principles of the WIST**

- Principle 1. Consistency: All initiatives are assessed against the four capitals of the LSF.
- Principle 2. Impact: Initiatives must aim to have positive or neutral impacts on all four capitals.
- Principle 3. Transparency: Document any assumptions and judgements you make throughout the WIST process.

#### PART A: THE STEPS TO USING THE WIST

Part A.1 - Overview of the WIST process



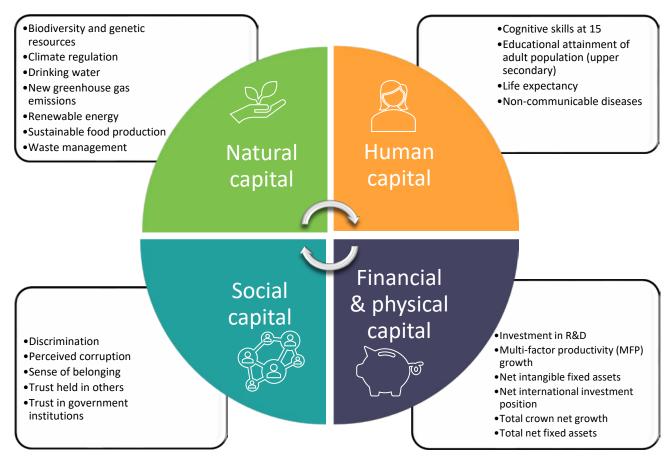
#### PART A.2 - The steps in detail



#### Step 1 – Identifying relevant capitals (and indicators)

The first step is to identify which of the four LSF capitals (including related indicators from the <u>LSF Dashboard</u>) your initiative will have an impact on (see Figure 1).

Figure 1 - The LSF four capitals with their respective indicators

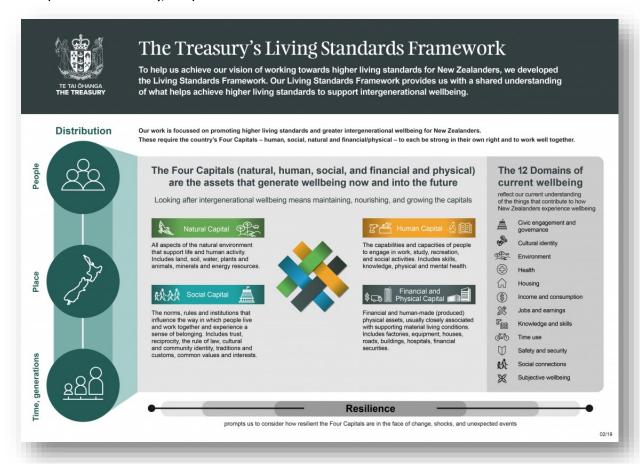


The LSF has been developed to represent the things that matter when it comes to the wellbeing of our population, now and into the future. The LSF helps facilitate a shared understanding and basis of the matters to be considered in achieving improved intergenerational wellbeing for all New Zealanders.

The LSF includes 12 Domains of current wellbeing outcomes; four capitals that support wellbeing now and into the future; and distribution, risk and resilience (See Figure 2).

Figure 2 – Living Standards Framework

Source: (New Zealand Treasury, 2019)



The WIST focuses on the impact of initiatives on the four capitals and the risk and resilience aspects of them. The four capitals are considered to be the key determinants of wellbeing for now and the future. The WIST as a pre-screening tool works to ensure any initiatives which are contemplated, first and foremost, do not deplete but build (or at least have a neutral impact on) the resilience of the four capitals regardless of the benefits they may bring to the 12 domains of current wellbeing in the short term. Protecting the four capitals is critical in safeguarding future wellbeing and respecting the intergenerational aspects of any initiative.

More information about the LSF can be found at the New Zealand Treasury's website.



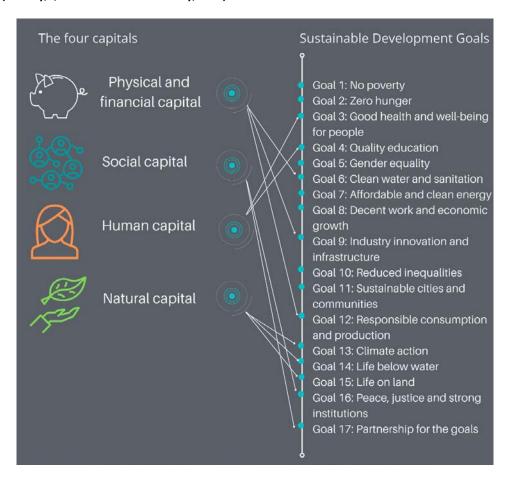
#### Step 2 – Identifying New Zealand's progress

The next step is to consider how we are tracking on the relevant LSF capitals. Are we improving (upward trend) or deteriorating (downward trend), or relatively static (flat), on the relevant indicators for the four capitals? To determine this, you can review relevant wellbeing data related to these indicators at the LSF dashboard, from the Treasury.

Additional useful wellbeing data can also be found at:

- Nga Tutohu Aotearoa <u>Indicators Aotearoa New Zealand</u> (IANZ), which is led by Statistics New Zealand and
- the United Nations (UN) Global Sustainability Development Goals (SDG) <u>Indicators Database</u> to
  understand the progress of New Zealand against the SDG targets. SDG targets can otherwise be
  found at the UN SDG website. See Figure 3 for the relationship between the four capitals and SDGs.

Figure 3 – Linking the four capitals to relevant SDGs Modified from (Ormsby, J; The New Zealand Treasury, 2018)



Make a note of all the capitals and their respective indicators which your initiative will have an impact on for further analysis at <u>Step 4.</u>



#### Step 3 – Identifying the Government's priorities

In this step it is important to consider whether there has been a government commitment to prioritise the improvement of any of the capitals and, any particular indicators. See Box 1 for an example (Government of New Zealand, Wellbeing budget 2021: Securing our Recovery).

To determine this, you could check:

- the latest Wellbeing Budget priority areas
- any other wellbeing objectives set by Government (e.g. legislation, manifesto commitments, government announcements) and
- the Statement of Intent for the relevant ministries, departments or agencies.

Make a note of the capitals and their respective indicators which the Government has indicated is a priority for improvement for further analysis at <a href="Step 5">Step 5</a>.

#### Box 1 – Example of Government's priorities: New Zealand Wellbeing Objectives

The current Government has five wellbeing objectives which underpin its 2021 budget decisions (as required under the *Public Finance Act 1989*). The current wellbeing objectives are:

- supporting the transition to a climate-resilient, sustainable and low emissions economy, while building back from COVID-19
- enabling all New Zealanders and New Zealand businesses to benefit from new technologies and lift productivity and wages through innovation and support into employment those most effected by COVID-19, including women and young people
- supporting improved health outcomes for all New Zealanders and keeping COVID-19 out of our communities
- lifting Māori and Pacific incomes, skills and opportunities and combatting the impacts of COVID-
- reducing child poverty and improving child wellbeing.



# Step 4 – Assessing the degree of impact of your initiative on the capitals

In this step, you will consider what impacts your initiative will have on the relevant LSF capitals and indicators you have identified. Do you think your initiative will have a negative, positive or neutral impact on

relevant indicators, and to what degree? This will help you determine the extent to which your initiative will build, deplete or sustain resilience to maintain or improve existing levels of wellbeing.

It will be important to consider and clearly outline the:

- problem you are attempting to solve or the harm you are hoping to reduce or avoid e.g., outlining the base case using an environmental assessment and what is required to improve the current situation
- impact of the initiative on each of the capitals and how it responds to any risks to the sustainability of these capitals e.g., does your initiative detract or add to inclusiveness
- duration of the initiative e.g., short (5-10 years), medium (10-20 years) or long term (+40 years) being intergenerational
- scale of impact e.g., strategic or incremental change; across all of New Zealand or limited to a specific industry, region or population group
- limitations imposed by current legislation, the authorising environment or data sets and evidence available.

When using the WIST, it is important to outline the assumptions you have made and what you have included and excluded. This assists your assessment and informs those reviewing or making the final decision, in a similar way to the process used when conducting a risk assessment for high-risk work. By doing this you are effectively establishing the limits on what is and what isn't being considered so this is transparent to all involved including the reasons you have drawn conclusions. As part of this process, you might highlight the potential third and fourth order effects that include a multitude of variables beyond those directly associated with a project which have been excluded. An example is provided in **Box 2** below.

#### Box 2 – Exclusions that may impact on the LSF indirectly or in the longer-term

Part of your project may involve the purchase of bitumen for a highway project. A potential item you may highlight as being out of scope is an acknowledgment that the increase in demand due to the project and therefore increase price of bitumen may have a negative impact on physical and financial capitals for projects in other regions into the future. The reason you have chosen to exclude it would be on the basis those projects and the price of bitumen itself has so many other variables some of which are globally influenced.

There is no 'right' or 'wrong' result for the WIST. However, similar to conducting a risk assessment, the use of the WIST by two independent people for the same project will likely produce different results. By fully documenting the context and therefore the basis of your assessment, your rationale will be better understood by the assessor and decision makers (in the near term and future).

Record your analysis, and any assumptions and judgements you have made in the template table provided at <u>Appendix 1.</u>



# Step 5 – Assigning scores to your impact on the relevant LSF capitals and relevant indicators

In this step, you will be assigning your initiative **three scores** under the following categories:

• **New Zealand's progress:** How New Zealand is progressing on the indicators you have identified as being impacted by your initiative (as determined at step 2) - See <u>Table</u> 1 as to what scores should be allocated. For example:

- o if your initiative is having a positive impact on an indicator which is on an upward trend, then you would assign your initiative in this category 1 point.
- o if your initiative is having a negative impact on an indicator which is on a downward trend, then you would assign your initiative in this category -2 points.
- **Government priority:** Whether it is a New Zealand government priority for the indicators you have identified as being impacted by your initiative to improve (as determined at step 3) See <u>Table 2</u> as to what scores should be allocated. For example:
  - o if your initiative is having a positive impact on an indicator which is a government priority for improvement, then you would assign your initiative in this category 1 point.
  - o if your initiative is having a negative impact on an indicator which is a government priority for improvement, then you would assign your initiative in this category -1 point.
- **Degree of impact:** The degree to which your initiative would have an impact on the indicators (as determined at step 4) See <u>Table 3</u> as to what scores should be allocated. For example:
  - o if your initiative will have real and sustainable supportive impact on the capital for many generations to come, then you would assign your initiative in this category 3 points.
  - o if your initiative will have some harmful impacts over the medium term, then you would assign your initiative in this category -2 points.

The final step is to add up the three scores in each of the above categories and enter the total score for that indicator into the template scoring sheet for initiatives at <u>Appendix 1</u>. It is critical in inserting your allocated score that you provide clear reasoning and/or supporting evidence for your assessment. For example, if you allocated a score of +3, you should explain clearly and/or provide supportive evidence as to why and how your initiative will have "real and sustainable supportive impact on the capital for many generations to come".

You should also note any other factors which may be relevant, and which may be outside your control to change, including legislative obligation or a contractual commitment. This will provide the assessor an opportunity to take this into consideration during assessment.

The aim is to achieve neutrality or improvement across all of the four capitals. If your initiative has been unable to do this, then you may wish to:

- take steps to further refine your initiative by finding alternatives to avoid the negative impacts you
  have identified or
- nominate measures which will be implemented alongside your initiative that will offset any negative impacts. This may include:
  - o coupling your initiative with another initiative where each initiative is able to offset one another, resulting in overall neutrality or improvement across the four capitals
  - o participating in any approved 'offset' program (e.g., carbon offsetting) to negate any negative impacts.

If neutrality or improvement is not possible, then the reasons for this should be documented, noting that it would only be under exceptional circumstances where initiatives which do not meet this threshold are approved.

Table 1 Scoring for New Zealand's progress on relevant indicators

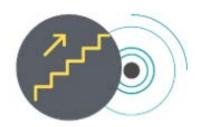
POSITIVE IMPACT	Score
Indicator is improving (upward trend)	+1
Indicator is deteriorating (downward trend)	+2
NEUTRAL IMPACT	Score
Indicator is static and no impact	0
NEGATIVE IMPACT	Score
Indicator is improving (upward trend)	-1
Indicator is deteriorating (downward trend)	-2

Table 2 – Scoring for Government priority on relevant indicators

POSITIVE IMPACT	Score
Identified Government priority	+1
Not an identified Government priority	0
NEGATIVE IMPACT	Score
NEGATIVE IMPACT Identified Government priority	Score -1

Table 3 – Scoring for degree of impact on relevant indicators

Magnitude	Definition	Score
	The initiative will have real and sustainable	
	supportive impact on the capital for many	
Strong positive impact	generations to come	+3
Positive impact	Improving the capital over the medium term	+2
Marginal positive impact	Some minor immediate improvements	+1
Neutral	Neither positive or negative impact	0
	Will have a minor disadvantageous impact over the	
Marginal negative impact	immediate timeframe	-1
Negative impact	Some harmful impacts over the medium term	-2
	The initiative will have real and ongoing detrimental	
Strong negative impact	impact on the capital for many generations to come.	-3



#### Step 6 – Consider whether further analysis is appropriate

The WIST is a pre-screening tool to understand alignment with the LSF. You may then be required to undertake other established Treasury or agency mechanisms, for example cost benefit analysis (CBA) or a multi-criteria analysis.



# PART B: GUIDANCE ON ASSESSING THE WIST ANALYSES

This part is to be used by assessors once WIST analyses have been received along with the proposal or business case.

#### Step 1 - Analyse the results

Once you have received the WIST analyses when prioritising multiple initiatives, you are now ready to assess and compare the results. Only initiatives that have POSITIVE or NEUTRAL scores across all four capitals should be considered for progression. See below for guidance on how to deal with 'Initiatives which do not meet this threshold'. Once it can be shown that the initiatives (along with any OFFSET measures – see 'Initiatives which do not meet the threshold') achieve a POSITIVE or NEUTRAL score across all four capitals, the initiatives can then be listed, in relation to the domains, from the ones with the highest NET positive mark to the lowest NET positive mark (neutral impacts are not counted). See <u>Appendix 2</u> for more information.

#### Initiatives which do not meet the threshold

Where an initiative is unable to achieve a POSITIVE or NEUTRAL score, they may still progress if the submitters have nominated measures which will be implemented alongside their initiative that will OFFSET any negative impacts. This may include:

- coupling their initiative with another initiative where each initiative is able to offset one another, resulting in overall neutrality or improvement across the four capitals
- participating in any approved 'offset' program (e.g., carbon offset) to negate any negative impacts.

If neutrality or improvement is not possible and there are no alternative options, then you should consider whether exceptional circumstances exist to progress the initiative. It may be that approval will be required by a more senior official for such an initiative to be progressed.

#### Comparing scores and prioritising initiatives

It is important that in comparing and prioritising initiatives, you consider the assumptions, judgement and supporting evidence for the scores which have been allocated. This is to ensure there is consistency of assessment and account for any optimism bias on the part of the submitter for their own initiative. As a result, it may be necessary for you to adjust scores to ensure comparisons can be made. It may be appropriate to utilise a panel to ensure transparency and consistency in decision making.

As well as adjusting for comparison purposes, there may be occasions when the assessor does not support the assessment provided by the submitter. There could be a variety of reasons to consider adjusting values for individual indicators and therefore the overall outcome. Motivations may include, but are not limited to, the context being incorrectly defined or the use of incomplete datasets. Regardless of the reason, it is vital that they are noted including an explanation to support the amendment.

To ensure transparency, any changes to scores made by the assessor should be provided to decision makers as part of the decision-making process.

### Step 2 – Consider whether further analysis is appropriate

Once you have identified the top few initiatives from <a href="Step 1">Step 1</a> (or where the initiatives are evenly scored), you may wish to request the submitter to undertake a further more in-depth and/or bespoke analysis, if this has not yet been done, for example Social Cost Benefit Analysis (SCBA) with CBAx. It is recommended the submitter and/or assessor check with the relevant area of the agency for follow-on processes.

### Appendix 1 – Template for recording your WIST analysis of your initiative

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nment for the project?)
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t the time?)

Capital	Description of capital	Description of impact	Assumptions in assessment	Indicators	Table 1 Current progress	Table 2 Government priority	Table 3 Degree of impact	Sub total
Natural				Biodiversity and genetic resources			·	
	All aspects of the natural environment that support			Climate regulation				
				Drinking water				
	life and human activity.			Net greenhouse gas emissions				
	Includes land, soil, water, plants and animals, minerals			Renewable energy				
	and energy resources.			Sustainable food production				
				Waste management				
						Natural C	apital Total	
Social	The norms, rules and			Discrimination				
	institutions that influence the way in which people live			Perceived corruption				
<b>\$</b> -@	and work together and			Sense of belonging				
	experience a sense of belonging. Includes trust,			Trust held in others				
	reciprocity, the rule of law,			Trust in government institutions				
	cultural and community identity, traditions and customs, common values and interests.					Social C	apital Total	
Human	The capabilities of people to			Cognitive skills at age 15				
	engage in work, study, recreation and social activities. Includes skills, knowledge, physical and			Educational attainment of adult				
				Life expectancy				
				Non-communicable diseases				
	mental health.					Human C	apital Total	
Financial &	Financial and human-made			Investment in R&D				
physical	(produced) physical assets,			Multi-factor productivity growth				
	usually closely associated with supporting material			Net intangible fixed assets				
	living conditions, includes		Net int'l investment position					
	factories, equipment, houses, roads, buildings,		Total crown net worth					
	hospitals, financial			Total net fixed assets				
	securities.				Financial a	and Physical C	apital Total	
						0	verall Total	

### Appendix 2 – Template for analysing and comparing results of different initiatives

	INITIATIVES	1	2	3	4
1	Does initiative achieve POSITIVE or	Y/N	Y/N	Y/N	Y/N
	NEUTRAL impact on all four LSF capitals?				
2	If not, are there acceptable measures which will be implemented to OFFSET impact on LSF capitals?	Y/N	Y/N	Y/N	Y/N
3	Record assumptions and judgements relating to the above				
**(	ONLY PROCEED TO COMPLETE THE RE	ST OF THE TAB	LE IF YOU HAV	'E ANSWERED '	YES' TO
EIT	HER 1 OR 2 ABOVE				
4	Final POSITIVE scores for each initiative				
5	Final NEGATIVE scores for each initiative				
6	NET score				
7	LIST PRIORITY (starting from 1 for				
	highest NET score)				

Record reasoning, including any assumptions and judgements made		

#### Appendix 3: Worked Example – NZ Battery Project

#### Description of initiative

Hydroelectric power is considered a renewable power source which in New Zealand provides 50-60% of the overall baseload electricity requirements (Institution of Civil Engineers, 2018). However, it requires regular rainfall to occur in specific catchments to ensure dams are maintained at a level to support power generation. MBIE is currently investigating a number of different projects to bridge the gap of New Zealand's 'dry year' problem (2021a) to ensure power generation does not need to revert more frequently to fossil fuel sources when dam levels are not able to support power generation. At the initial stages of project development, the NZ Battery Project is suitable to be screened using the WIST to ensure it aligns with the intent of the Living Standards Framework, prior to further budgetary processes.

The NZ Battery Project is a proposed pumped-hydro project, possibly at Lake Onlsow, Otago, or other suitable locations. It is based on a recommendation by the Interim Climate Change Committee (2019) when other renewables were considered, such as hydrogen and biomass power sources. Pumped hydro uses the dam and its water as energy storage (Energy Storage Association, 2019). During peak power demand, water is released, and power is generated almost instantaneously. At other times when there is excessive power being generated, such as from other renewable sources, water is pumped back up into the dam to replenish the stored energy levels.

#### Walking through the process (step 1 to 6)

Whilst it is not yet possible to conduct an in-depth cost benefits analysis as further details on this project are being developed, is it worth pursuing in the first place? What benefits will it bring to New Zealanders? How will investing in the 'dry year' problem and ensuring the continued transition to renewable energy sources improve the wellbeing of the community today and into the future? Outlined below is a brief worked example using the WIST and information publicly available for the NZ Battery Project.

#### Case for change

The NZ Battery Project is designed to action a number of key government priorities to combat climate change whilst also ensuring that the energy demands of New Zealanders, today and into the future, are met. Key Government priorities linked to the current Wellbeing Budget (2021) include:

- supporting the transition to a climate-resilient, sustainable and low emissions economy, while building back from COVID-19
- enabling all New Zealanders and New Zealand businesses to benefit from new technologies and lift
  productivity and wages through innovation and support into employment those most affected by
  COVID-19, including women and young people.

The project supports the Government's 100% renewable energy goal with net zero carbon emissions (Ministry of Business, Innovation and Employment, 2021a). The project actions recommendations issued by the Interim Climate Change Committee (2019).

#### **Intervention logic**

By outlining the governments priorities above, the NZ Battery Project is part of the ongoing solution to transition to renewable energy sources and reduce overall carbon emission without negatively impacting energy resources for New Zealanders. Whilst this specific information is not available, it would be supported by criteria addressing the following (Public Service Commission, 2002):

- is backed by research
- is based on previous experience and testing
- is, where possible, founded on valid theories of cause and effect
- is practical
- informs as part of the learning cycle.

# Outcome/ Analysis

Step	Action	Assessment				
STEP 1	Identifying relevant capitals (and indicators)	The NZ Battery, focusing on renewable energy sources will have an impact on both the natural and the financial/physic Capitals. There may only be some minor impacts on social and human for specific indicators.				
STEP 2	Identifying New Zealand's Progress	Sourced from LSF Dashboard (2019). See attachment below				
STEP 3	Identifying the Government's priorities	Identified in the 'case for change' section above.				
STEP 4	Assessing the degree of impact of your initiative on the capitals	The NZ Battery is a positive impact for natural capital across New Zealand. It provides positive impact for physical/financial in the Otago Region. The infrastructure will have a long lifespan. The decrease in fossil fuel use for power generation will also have a long duration				
STEP 5	Assigning scores to your impacts	See attachment below with example assessments				
STEP 6	Consider whether further analysis is appropriate	As the project is still in the initial scoping stage this is not required. However, if is progresses, CBA(x) and other agency procurement requirements would need to be undertaken.				

#### **Summary**

The NZ Battery Project has strong Natural Capital outcomes supporting the ongoing transition to renewable energy sources. It also supports Financial and Physical Capital improvements through continued meeting of energy demands to support growth. This aligns with the government priorities identified above. The project has limited Social and Human Capital improvements though no negative impacts. Overall, the project would improve the well-being for New Zealanders into the future.

#### Recommendation

The following is recommended following WIST analysis:

- 1. That the NZ Battery progresses to review and prioritisation alongside other renewable energy initiatives underway which may be competing for funding.
- 2. That if progressed a full Cost Benefit Analysis is undertaken providing there are no concerns identified in the technical feasibility study (Ministry of Business, Innovation and Employment, 2021b) or local conservation assessment.

Project Name	NZ Battery Project	Lead Agency	MBIE		
Assessment Officer	Officer A	Reviewing Officer	Officer B		
Project Overview	MBIE is currently investigating a number of different projects to bridge the gap of New Zealand's 'dry year' problem (2021) to ensure power generation does not need to revert more frequently to fossil fuel sources when dam levels are not able to support power generation. The NZ Battery Project is a proposed pumped-hydro project, possibly at Lake Onlsow, Otago, or other suitable locations. It is based on a recommendation by the Interim Climate Change Committee (2019) when other renewables were considered, such as hydrogen and biomass power sources.				
Duration/Time Period	The infrastructure, with ongoing maintenance is, expected to remain in place for at least 40 years. The contribution to the overall strategy of reducing fossil fuel dependency and carbon emission is also considered to provide benefits over the long term.				
Geography	Power supply is focused on the Otago Region with climate impacts assessed against New Zealand holistically.				
Inclusiveness	Social and Cultural Norms are considered. Lake Onslow was formed by damming the Teviot River and Dismal Swamp in 1890 and has become an important part of the local community. The technical reference group includes members representing Māori and community.				
Environmental	Assessment of potential local environmental impacts are being assessed by Department of Conservation. Wider assessment includes the Government's target of 100% renewable energy goal with net zero carbon emissions				
Legal Framework	To be determined				
Information/Data Availability	To be updated following environmental base case and completion of technical feasibility study (Ministry of Business, Innovation and Employment, 2021b). Indicator current state sourced from The Treasury.				
Other	Whilst the NZ Battery Project proposes the construction of a critical piece of infrastructure, the wellbeing assessment goes beyond capturing both the environment/climate change as well as energy demand contexts.				
Reviewing Officer Comments	Reviewing officer's acceptance of the context or amendme	ents			

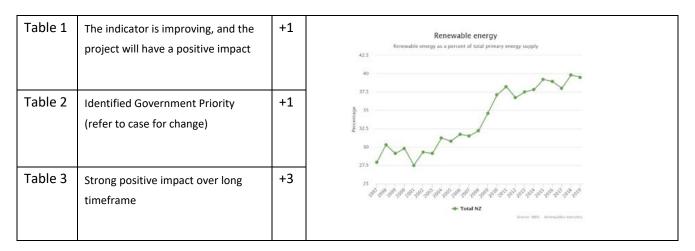
Capital	Description of capital	Description of impact	Assumptions in assessment	Indicators	Table 1 Current progress	Table 2 Government priority	Table 3 Degree of impact	Sub total
Natural	a renewable energy mature technology it is	Biodiversity and genetic resources	0	1	0	1		
		source. This will reduce the use of fossil fuels.  natural The other uses for Lake Onslow, such as drinking	assumed it will achieve a round-trip energy efficiency of	Climate regulation	1	1	2	4
				Drinking water	0	1	0	1
	All aspects of the natural			Net greenhouse gas emissions	2	1	2	5
	environment that support			Renewable energy	1	1	3	5
	life and human activity. Includes land, soil, water,	water are out of context		Sustainable food production	0	1	0	1
	plants and animals, minerals	Context		Waste management	0	1	0	1
	Greenhouse emissions. It will increase the amount of renewable energy available.	Natural Capital Total				10		
	The growing order and	The conduct of the	That the sand in second		T .	T _ 1		18
Social	ine norms, rules and institutions that influence	The norms, rules and institutions that influence the way in which people live the way in which people which was a way in which wa	<u> </u>	Discrimination	0	1	0	1
	the way in which people live		''	Perceived corruption	0	1	0	1
<b>\$</b> -@	experience a sense of government attempts to source	renewable energy sources across the community leading to	Sense of belonging	0	1	0	1	
			Trust held in others	0	1	0	1	
	reciprocity, the rule of law,	comfont chimate change	trust in government	Trust in government institutions	1	1	1	3
	cultural and community identity, traditions and customs, common values and interests.		Social Capital Total				7	
Human	The capabilities of people to engage in work, study, recreation and social  That meeting ongoing energy demands will continue to enable population	continue to grow with	Cognitive skills at age 15	0	1	0	1	
engag recrea activit			Educational attainment of adult	1	1	1	3	
			population supporting ongoing access to education.	Life expectancy	0	1	0	1
		·		Non-communicable diseases	0	1	0	1
				Human Capital Total				6
	Financial and human-made	Renewable energy to	That pumped hydro is a	Investment in R&D	2	1	2	5
	(produced) physical assets,	instantaneously meet	mature technology but	Multi-factor productivity growth	2	1	2	5

Capital	Description of capital	Description of impact	Assumptions in assessment	Indicators	Table 1 Current progress	Table 2 Government priority	Table 3 Degree of impact	Sub total
Financial	usually closely associated	peak power demand will	will support further direct	Net intangible fixed assets	0	1	0	1
	with supporting material	provide energy security	and indirect R&D benefits.	Net int'l investment position	0	1	0	1
&	0 ,	for all users. The design and	Energy supply will continue to support productivity growth	Total crown net worth	2	1	1	4
Physical	houses, roads, buildings,	engineering work may		Total net fixed assets	0	1	0	1
	hospitals, financial securities.	enable the conversion of other hydroelectric power stations further enhancing renewable energy provision.		Financial and Physical Capital Total		,		17
Overall Total		371						48

#### **Assigning Scores – Examples**

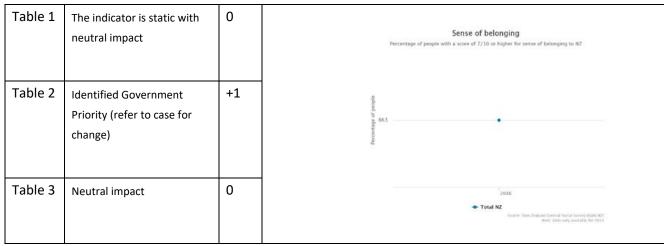
Outlined below are examples when assigning scores (step 5) based on the various assessments undertaken throughout.

#### Example – Natural Capital – Renewable Energy



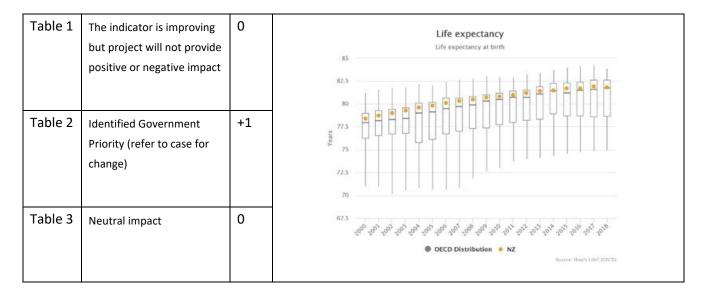
In this example, the indicator is improving on the LSF Dashboard (New Zealand Treasury, 2019). It is identified as a government priority, both in the Wellbeing Budget. The impact is based on the assessment outlined by the Interim Climate Change Committee (2019).

#### Example - Social Capital - Sense of Belonging



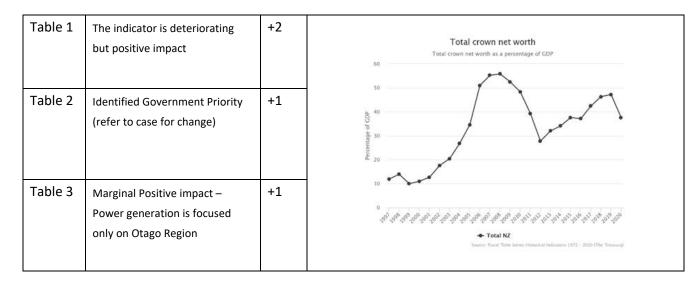
In this example, the current indicator is static (New Zealand Treasury, 2019) with minimal impact. It is identified as a government priority, both in the Wellbeing Budget. The NZ battery is assessed to have neither positive no negative impact on sense of belonging.

#### Example – Human Capital – Life Expectancy



The indicator is improving slowly but the project will have minimal impact (2019). Life expectancy is a general government priority, but the project will neither improve or decrease it.

Example – Financial and Physical Capital – Total Crown Net Worth



The indicator is generally positive over the long-term but is currently negative with the ongoing effects from COVID-19 (2019). Growth is a government priority, outlined in the case for change. Impact will be positive but marginal, being targeted to the Otago region.

#### References

Controller and Auditor-General, 2021. The Government's preparedness to implement the sustainable development goals. [Online]

Available at: <a href="https://oag.parliament.nz/2021/sdgs/docs/sustainable-dev-goals.pdf">https://oag.parliament.nz/2021/sdgs/docs/sustainable-dev-goals.pdf</a> [Accessed 19 September 2021].

Energy Storage Association, 2019. *Pumped Hydroectric Storage*. [Online] Available at: <a href="https://web.archive.org/web/20190119150459/http://energystorage.org/energystorage/technologies/pumped-hydroelectric-storage/">https://web.archive.org/web/20190119150459/http://energystorage.org/energystorage/technologies/pumped-hydroelectric-storage/</a> [Accessed 16 October 2021].

Government of New Zealand, 2021. Wellbeing Budget 2021, Wellington: Government of New Zealand.

Institution of Civil Engineers, 2018. *Hydroelectric power New Zealand*. [Online] Available at: <a href="https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/hydroelectric-power-new-zealand">https://www.ice.org.uk/what-is-civil-engineering/what-do-civil-engineers-do/hydroelectric-power-new-zealand</a> [Accessed 16 October 2021].

Interim Climate Change Committee, 2019. *Accelerated electrification - Evidence, Analysis and Recommendations,* Wellington: Government of New Zealand.

Ministry of Business, Innovation and Employment, 2021a. *NZ Battery Project*. [Online] Available at: <a href="https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/low-emissions-economy/nz-battery/">https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/low-emissions-economy/nz-battery/</a> [Accessed 16 October 2021].

Ministry of Business, Innovation and Employment, 2021b. *NZ Battery Project Media Statement*. [Online] Available at: <a href="http://createsend.com/t/r-28926ED483DF17062540EF23F30FEDED">http://createsend.com/t/r-28926ED483DF17062540EF23F30FEDED</a> [Accessed 16 October 2021].

New Zealand Treasury, 2019. *Living Standards Framework: Dashboard*. [Online] Available at: <a href="https://lsfdashboard.treasury.govt.nz/wellbeing/">https://lsfdashboard.treasury.govt.nz/wellbeing/</a> [Accessed 22 October 2021].

New Zealand Treasury, 2019. *The New Zealand Living Standards Framework*. [Online] Available at: <a href="https://www.treasury.govt.nz/publications/dp/dp-18-06-html#section-1">https://www.treasury.govt.nz/publications/dp/dp-18-06-html#section-1</a> [Accessed 25 July 2021].

Ormsby, J; The New Zealand Treasury, 2018. *The relationship between the Sustainable Development Goals and the Living Standards Framework.* [Online]

Available at: <a href="https://www.econstor.eu/handle/10419/205379">https://www.econstor.eu/handle/10419/205379</a> [Accessed 15 September 2021].

Public Service Commission, 2002. *Ideal features of sound intervention logic*. [Online]

Available at: <a href="https://www.publicservice.govt.nz/resources/op16/?e343=2556-ideal-features-of-sound-intervention-">https://www.publicservice.govt.nz/resources/op16/?e343=2556-ideal-features-of-sound-intervention-</a>

<u>logic#:~:text=Intervention%20logic%20is%20the%20rationale,on%20their%20selection%20of%20activities.</u> [Accessed 16 October 2021].

Images - Cover - Silver fern, sourced from Canva https://www.canva.com

Cover - Detail of a bottom border Māori kahu, Detail\_of\_bottom\_border\_of\_Māori\_kahu\_kiwi.jpg (2592×3888) (wikimedia.org)

Header - New Zealand Flax, sourced from Canva https://www.canva.com