

POLICY PAPER

Some Missing Links in Ireland's National Well-Being Framework

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Abstract: Ireland's first national well-being framework was announced in late 2021. This study offers a systematic review concerning two key missing links whose omission weakens the framework's coherence. The first is the lack of clarity surrounding the concept of sustainable development leading to potential confusion between the trade-offs surrounding well-being today and sustained well-being into the future. The second is a lack of regional integration that threatens to distort policy choices regarding regional development. Considerations for the future development of the national well-being framework are presented through an amended dashboard, a suite of suggested indicators at a more disaggregated regional level that intersects relevant well-being themes and a practical policy application of an amended framework to the monitoring of the goals of the National Planning Framework.

I INTRODUCTION

The traditional measures of economic progress are based on national and regional economic accounts, in line with the European System of Accounts (ESA). These accounts provide comparable objective information and represent the conventional measures of economic progress such as Gross Domestic Product (GDP) and Gross National Income (GNI). Economists have long recognised the ESA aggregates were not designed to measure well-being (Kuznets, 1934; Nordhaus and Tobin, 1973;

Acknowledgements: I would like to thank the participants at the Policy Studies Association of Ireland Conference 2022, an anonymous reviewer and my colleagues Deirdre Frost and Dr Helen McHenry for helpful comments on earlier versions of the paper. The author is solely responsible for the content and the views expressed.

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Stiglitz *et al.*, 2009) and are deficient for measuring sustainable economic development (Dasgupta, 2001).¹ In recent years, there has been a concerted global effort to move beyond GDP to focus on the more holistic concept of well-being and the interrelated concept of sustainable development (Stiglitz, *et al.*, 2009; 2018). The recent COVID-19 pandemic has also offered a sharp reminder of the interdependence between our natural environment and our economy. More holistic measures of progress will be necessary to combat future environmental and developmental risks such as climate change (Polasky *et al.*, 2019). These issues are salient in Ireland, where these traditional measures have become distorted by globalisation impacts (Department of Finance, 2020). How we evaluate policy decisions and measure regional and national economic performance will have a large influence over the types of policy choices that will be considered and the policy choices that are made. If we consider regional development policy, regional balance or convergence has a well-established measurement approach based on the gap in Gross Domestic Product (GDP) between regions. However, measuring progress towards achieving regional potential and regional well-being presents a much more complex measurement task.

Internationally, well-being and sustainable development programmes have been pioneered by the United Nations, the World Bank and the Organisation for Economic Co-operation and Development (OECD). At the national level, New Zealand has been the leader, having developed multi-dimensional well-being frameworks over the past decade. In Ireland, the 2020 Programme for Government announced the intention to create a national well-being framework to incorporate broader measures of progress for use in shaping policy and evaluating outcomes (Government of Ireland, 2020). The initial version of the national well-being framework was delivered in the ‘First Report on a Well-Being Framework for Ireland’ (Government of Ireland, 2021) and the associated CSO well-being data hub (CSO, 2021).² The framework was subsequently amended as detailed in the ‘Second Report’ (Government of Ireland, 2022a). The Irish government is cognisant that the framework is in the early stages of implementation. This study contributes to the literature on national well-being frameworks by providing a systematic review of the Irish approach, highlighting two key missing links whose omission threatens to weaken the coherence of the framework.

The first missing link is the fundamental risk of meshing together current well-being and the sustainability of that current level of well-being into the future i.e. the inter-relationship between current well-being and sustainable development. For example, within the economics literature, sustainable development is generally

¹ The ESA 2010 notes that “The central framework and its major aggregates do not describe changes in welfare”.

² Please see <https://www.gov.ie/en/campaigns/1fb9b-a-well-being-framework-for-ireland-join-the-conversation/> and <https://www.cso.ie/en/releasesandpublications/ep/p-wbhub/well-beinginformationhub/> for more information.

defined as non-declining well-being (or well-being opportunities) through time (Dasgupta, 2009). In this context, economic theory suggests that sustainable economic development entails the maintenance of the available stocks of broadly defined capital assets (the assets that provide flows of well-being) so that future generations may enjoy the same well-being opportunities enjoyed by the current generation (Solow, 1993). It is this link between capital assets and inter-generational well-being that provides the foundations for the so-called capital (or economic) approach to sustainable development (Hamilton and Clemens, 1999; Arrow *et al.*, 2012; Dasgupta, 2021). McGrath *et al.* (2020), in a study published in *The Economic and Social Review* focused on how to link sustainable development/well-being assessment with economic theory. The authors argued for a consistent framework to be based on the economic theory that underpins the capital approach to sustainable development. The present study builds on that previous study to amend Ireland's initial national framework to align with such an approach.

The second missing link is the lack of regional integration. National development is maximised when regions can harness the assets at their disposal to reach their potential. Using the logic of the framework above, sustainable regional development ultimately depends on interactions between regional assets (such as natural, physical, social, and human capital) and national and local institutional and technological capacity. Irish regional policy has gained prominence in recent years with the publication of *Our Rural Future: Rural Development Policy 2021-2025* and the longer-term vision of more balanced regional development contained in Project Ireland 2040 which is comprised of the National Planning Framework (NPF) and the National Development Plan (NDP). While a specific regional policy focus is important, it should also be recognised that all policies can have regional impacts. Consequently, regional development cannot be viewed in isolation or as the responsibility of a single policy document, department or agency.

Sustainable regional development policy should seek to enable regions to harness their assets to promote natural and entrepreneurial ecosystems; to attract skilled, creative and innovative people; provide high-quality institutions, cultural and environmental facilities; and encourage the development of social networks. Given the stated desire for the well-being framework to become an overarching focus for policymaking, insufficient regional integration risks unclear monitoring of progress and thus may distort policy choices and evaluation concerning regional development. A national well-being framework should therefore attempt to seriously consider the importance of the integration of regional issues, even at the early stages of development. A contribution of this study is to provide considerations for how regional integration may be addressed by suggesting several indicators at a more disaggregated regional level that intersect many relevant well-being themes. A specific example of how the vision of the NPF may be integrated into a well-being/sustainable development framework is also presented.

The remainder of the study is as follows. Section II provides an overview of the national well-being framework. Section III details the lack of clarity surrounding the concept of sustainable development and presents an amended framework and indicator set. Section IV outlines the lack of focus on regional issues and provides considerations for regional integration within the national framework. A practical application of the framework with respect to the NPF is provided. Section V provides concluding remarks.

II AN OVERVIEW OF IRELAND'S INITIAL NATIONAL WELL-BEING FRAMEWORK

The development of new measures of well-being and progress was a commitment in the 2020 Programme for Government (Government of Ireland, 2020). The first output *Wellbeing and the Measurement of Broader Living Standards in Ireland* was a scoping study by the Department of Finance (DoF) published with Budget 2020 (DoF, 2020). In February 2021, the Government agreed to an approach to developing the framework through an interdepartmental working group. The terms of reference for the group, as noted by the National Economic and Social Council (NESC), included a desire to:

“provide more comprehensive policy analysis through a broader perspective developing a Framework which is integrated with policy-making” (NESC, 2021a).

In July 2021, the *First Report on a Well-Being Framework for Ireland* (Government of Ireland, 2021) was published alongside *Ireland's Well-Being Framework: Consultation Report* (NESC, 2021b). The initial well-being framework contains 11 themes:

- Income and wealth
- Knowledge, skills and innovation
- Mental and physical health
- Subjective well-being
- Safety and security
- Housing and local area
- Environment, climate and biodiversity
- Work and job quality
- Time use
- Community, social connections and community participation
- Civic engagement and cultural expression.

In October 2021, the second phase of consultation was announced, and a corresponding Central Statistics Office (CSO) data hub was released. The indicators and themes that encompass the initial framework are illustrated in Table 1. The

Table 1: National Well-Being Dashboard

<i>Theme</i>	<i>Indicator</i>	<i>Regional Breakdown?</i>	<i>Source</i>
Income and Wealth	Median Real Household Income	No	SILC
	Median Household Net Wealth*	No	SILC
	Households Making Ends Meet with great difficulty (self-reported)	No	Housing, Finance and Consumption Survey
Work and Job Quality	Government Net Worth*	No	National Accounts
	Labour Underutilisation Rate*	No	LFS
	Employment Rate	No	LFS
Housing and Local Area	Mean Weekly Earnings	No	Earnings Analysis Using Admin.
	New Dwelling Completions	Urban/Rural	Dwelling Completions
	BER Rating*	No	Domestic Building Energy Ratings
	Distance to Everyday Services*	Urban/Rural	Measuring Distance to Everyday Services in Ireland
	Housing Affordability	No Data	
Mental and Physical Health	Healthy Life Years at birth*	No	Healthy Life Years at Birth (Eurostat)
	Pop. Reporting Depression (self-reported)*	No	Irish Health Survey Results
	Unmet need for Medical Attention (self-reported)	No	Irish Health Survey Results
Time Use	Long Working Hours in Main Job	No	LFS
	Carers providing at Least 20 Hours Care per Week	No	Irish Health Survey - Carers and Social Supports
	Population satisfied with Time Use	No	SILC Module on Well-Being
Knowledge and Skills (renamed Knowledge Skills & Innovation)	PISA Scores*	No	PISA 2018 Results
	Lifelong Learning Rate	No	LFS
	Research and Development Personnel*	No	BERD

Table 1: National Well-Being Dashboard (Contd.)

Theme	Indicator	Regional Breakdown?	Source
Safety and Security	Murder Rate per 100,000 Population	No	Recorded Crime, CSO
	Persons Killed or Injured on Roads Population who worry they could be a Victim of a Crime (self-reported)	County Level No	Road Fatalities and Injured Casualties (RSA) Crime and Victimisation, CSO
Community, Social Connections and Cultural Participation	Pop. who Feel Lonely (self-reported)	No	Irish Health Survey - Carers and Social Supports, CSO
	Pop. with at least 2 people they are close enough to count on if they had a serious problem	No	Irish Health Survey - Carers and Social Supports, CSO
Civic Engagement and Cultural Expression	Persons who Experienced Discrimination in the Previous 2 Years	No	Equality and Discrimination, CSO
	Satisfaction with How Democracy Works in Ireland*	No	Eurobarometer Report,
	Perceived Social Inclusion*	No	SILC Module on Well-Being, CSO
Environment, Climate and Biodiversity	Pollution, Grime and other Environmental Problems	No	Survey on Income and Living Conditions
	Greenhouse Gas Emissions*	No	Environmental Accounts Air Emissions, CSO
	Waste to Landfill*	No	Measuring Ireland's Progress, CSO
	Water Bodies assessed as High or Good*	No	Ireland's UN SDGs - Report on Indicators for Goal 6 Clean Water and Sanitation, CSO
Subjective Well-Being	Pop. Rating their Overall Life Satisfaction as High	No	SILC Module on Well-Being, CSO
	Pop. who did not Feel Depressed or Downhearted in the Last 4 Weeks	No	SILC Module on Well-Being, CSO
	School aged Children who report being Happy with their Life at Present	No	Health Behaviour in School-aged Children (HBSC) Survey

Source: Adapted from CSO Well-Being data hub.

Note: *Denotes the indicator is tagged as a sustainability indicator, as discussed in Section III.

themes and indicators are discussed throughout the remainder of the study. It should be noted that Table 1 emphasises the lack of spatial disaggregation which is discussed in detail in Section V. In July 2022, a series of reports related to the development of the well-being framework were released. Department of Finance (2022) reviewed the framework regarding the concept of sustainability and made several recommendations, as discussed below. Government of Ireland (2022) detailed the various amendments made to the framework following the review and the other components of the second consultation phase and offered the first detailed dashboard analysis of the well-being indicators. A dashboard analysis has subsequently been included in the Summer Economic Statement, the National Economic Dialogue and Budget 2023. NESC (2022) examined how the well-being framework might be embedded into wider policymaking. The subsequent amendments to the framework are discussed in the following sections. This paper develops the argument that while these amendments offer welcome improvements, some key missing links remain that threaten to weaken the coherence of the well-being framework.

III THE MISSING LINK OF SUSTAINABLE DEVELOPMENT

Sustainable development as a policy goal has been widely supported following the Brundtland Commission's seminal definition, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Commission, 1987). The Brundtland Commission's definition places a focus beyond the well-being of the present generation to include an additional obligation to maintain well-being opportunities for future generations.

A fundamental issue with the Irish well-being framework is the lack of clarity surrounding the concept of sustainable development. Well-Being measurement without the explicit acknowledgement of sustainable development can lead to confusion and distortion between the implicit trade-offs surrounding well-being today and sustained well-being into the future. The international well-being literature emphasises the critical distinction between the well-being of today's citizens (current well-being) and intergenerational well-being (future well-being). Meshing current and future well-being risks distorting policy choices and evaluation. For example, the current generation may boost current well-being by degrading stocks of natural capital assets that will have negative future impacts. Stiglitz *et al.* (2009) summarise the issue:

The assessment of sustainability [future well-being] is complementary to the question of current well-being or economic performance and must be examined separately. This may sound trivial and yet it deserves emphasis,

because some existing approaches fail to adopt this principle, leading to potentially confusing messages. For instance, confusion may arise when one tries to combine current well-being and sustainability [future well-being]... (Stiglitz et al., 2009).

A key reason to distinguish future well-being from current well-being is to avoid short-sighted policymaking. The avoidance of short-termism has been a key motivator in international initiatives to move beyond GDP and toward more holistic measures of progress (Horlings and Smits, 2019). Current well-being is determined by factors such as the consumption of goods and services, leisure activities, and environmental and cultural amenities. Sustainable development involves sustaining (ideally enhancing) well-being opportunities for future generations. It is the current generation's use of capital assets, those assets that ultimately produce well-being, the stocks of natural, physical, social, and human capital and the extent of technological progress and institutional quality that ultimately determines the well-being opportunities for future generations (Solow, 1993; Stiglitz *et al.*, 2009; Dasgupta, 2021). It is this link between these broadly defined capital assets and intergenerational well-being that provides the foundations for the capital (or economic) approach to sustainable development (Solow, 1993).

Within this capital approach, a sustainable development path is one where the available stocks of broadly defined capital assets (e.g. natural, social, physical, and human capital), together referred to as comprehensive or inclusive national wealth, are maintained (ideally enhanced) such that future generations have, at least, the same well-being opportunities enjoyed by the current generation (Arrow *et al.*, 2012; Dasgupta, 2021). This literature shows that a reduction in comprehensive wealth implies future well-being must fall at some future point and thus offers a signal that an economy is on an unsustainable development path (Arrow *et al.*, 2012). The capital approach forms the basis of the Council of European Statisticians (CES) recommendations on measuring sustainable development (UNECE/Eurostat/OECD, 2014). The CES framework was first developed in 2009 and updated in 2013 and 2016 by a joint task force consisting of the United Nations Economic Commission for Europe (UNECE), Eurostat and OECD. The task force sought the harmonisation of approaches to measuring sustainable development. The framework is aimed at statistical offices and national governments interested in developing well-being/sustainable development frameworks. The core strength of the CES framework is that it provides “*an endorsed and universal framework for measuring sustainable development combining a strong theoretical basis and a clear link with policy needs*” (UNECE, 2016). The CES framework utilises the international literature to outline the three dimensions of well-being (Table 2).

Table 2: The Well-Being Dimensions**Current Well-Being**

The current dimension measures well-being for the current generation. There is no theoretical consensus on how to measure current human well-being as it is ultimately subjective to each individual. Some objective measures can be included such as population demographics and poverty metrics. The CES framework views the measurement of current well-being across the following themes: subjective well-being, consumption and income, nutrition, health, labour, education, housing, leisure, physical safety, land and ecosystems, water, air quality, trust, and institutions. Inequality and distributional issues will also be important as these societal issues are cross-cutting and relevant to most themes identified. The academic literature suggests that people's well-being is strongly influenced by their position concerning a peer group.

Future Well-Being

The well-being of future generations is ultimately dependent on the resources (capital) that the current generation leaves behind. The economic literature distinguishes four main types of capital: physical, natural, human, and social capital. Physical capital (roads, infrastructure, machinery etc.) is contained in the international standard, the System of National Accounts (SNA). The Central Framework of the System of Environmental-Economic Accounting (SEEA), adopted as a statistical standard in 2012, provides the basis for the measurement of natural capital (stocks and flows of environmental assets). Human capital is defined as the knowledge, skills, competencies, and attributes embodied in individuals that facilitate the creation of personal, social, and economic well-being. Social capital encompasses the generalised trust that is being built through the repeated interactions between citizens. A second theme related to social capital concerns the quality of society's institutions.

Transboundary Concerns

This "elsewhere" dimension attempts to capture how countries affect the human well-being of the rest of the world. A country may affect other countries via various channels. One example is the extent to which one country may deplete the resources of other countries, i.e. the so-called footprint indicators, which calculate the environmental pressure attributable to consumption in one country on resources abroad. Much of the sustainability literature focuses on the environment in terms of transboundary impacts such as local air pollution and climate change impacts that cross national boundaries. This is of critical importance for the ecological approach to sustainability and the related strong sustainability concerns that fall under the capital approach. The CES recommends the transboundary dimension be applied across the following themes: consumption and income, energy resources, mineral resources, land and ecosystems, water, climate, labour, physical capital, knowledge capital, financial capital, and institutions.

Source: Adapted from UNECE/Eurostat/OECD (2014).

The CES framework offers a theoretical base that can be harnessed to build a coherent well-being/sustainable development framework. The CES approach, illustrated in Table 3, links the three well-being dimensions to 20 policy-relevant themes covering current well-being as well as the environmental, social, and economic aspects of sustainable development. The 20 themes are: “subjective well-being”, “consumption and income”, “nutrition”, “health”, “housing”, “education”, “leisure”, “physical safety”, “trust”, “institutions”, “energy resources”, “mineral resources”, “land and ecosystems”, “water”, “air quality”, “climate”, “labour”, “physical capital”, “knowledge capital”, and “financial capital”.

The CES framework offers flexibility in terms of indicator selection across the 20 common themes and outlines two approaches to presenting and analysing the framework 1) Conceptual organisation: the 20 themes are organised according to the three well-being dimensions and monitored by 60 suggested indicators. 2) Thematic organisation: a large indicator set including the 60 conceptual indicators and an additional 30 policy-relevant indicators presented according to the 20 themes; and a small set of 24 indicators to communicate the main messages more efficiently to policymakers and the public. The CES framework has been practically applied by national governments, in the context of national well-being frameworks, in the Netherlands (Horlings and Smits, 2019) and New Zealand (New Zealand Treasury, 2018) and also informed the development of the OECD well-being framework (OECD, 2017).

The reader can compare Tables 1 and 3 for an illustration of the differences between the Irish and CES approaches. In contrast to Ireland’s well-being framework, the CES framework makes clear the importance of the explicit recognition of the often-implicit trade-offs that surround the issue of sustainable development. The needs of the present may conflict with the needs of the future. To satisfy a sustainable development criterion, policies that seek to maximise current well-being should do so subject to some form of capital maintenance rule where comprehensive wealth (broadly defined capital stocks) are maintained for future generations (Solow, 1993; McGrath *et al.*, 2020; Arrow *et al.*, 2012; Dasgupta, 2021). The CES Framework also explicitly acknowledges the importance of intragenerational concerns within the current well-being dimension and transboundary impacts. Intragenerational concerns may include distributional impacts at the individual and regional levels. For example, research during the pandemic period has shown the regional dimensions of the associated economic shocks stemming from COVID-19 (Lydon and McGrath, 2020).

Ireland’s well-being framework cited difficulties in the assumptions surrounding the relevant trade-offs and trying not to complicate the framework as reasons to mesh current and future well-being together (Government of Ireland, 2021). For example, aspects of physical capital are included in the theme of “income and wealth” and “knowledge and skills”; Biodiversity and climate change aspects of natural capital are included in the “environment, climate and biodiversity” theme.

Table 3: The CES Framework

<i>Dimension</i>	<i>Sub-Dimension</i>	<i>Theme</i>
Current Well-Being ("Here and Now")		Subjective Well-Being
		Consumption and Income
		Nutrition
		Health
		Labour
		Education
		Housing
		Leisure
		Physical Safety
		Land and Ecosystems
		Water
		Air Quality
		Trust
	Institutions	
	Mobility	
Future Well-Being ("Later")	Economic/Physical Capital	Physical Capital
		Knowledge Capital
		Financial Capital
		<i>Monetary - Economic Capital</i>
	Natural Capital	Energy Resources
		Mineral Resources
		Land and Ecosystems
		Water
		Air Quality
		Climate
		<i>Monetary - Natural Capital</i>
	Human Capital	Labour
Education		
	Health	
	<i>Monetary - Human Capital</i>	
Social Capital	Trust	
	Institutions	
	<i>Monetary - Social Capital</i>	
Transboundary Impacts ("Elsewhere")	Consumption and Income	Consumption and Income
	Economic/Physical Capital	Physical Capital
		Knowledge Capital
		Financial Capital
	Natural Capital	Energy Resources
		Mineral Resources
		Land and Ecosystems
	Water	
	Climate	
Human Capital	Labour	
Social Capital	Institutions	

Source: Adapted from UNECE/Eurostat/OECD (2014)

Table 4: The OECD Framework

<i>Dimension</i>	<i>Theme</i>	<i>Indicator</i>
Current Well-Being	Income & Wealth	Household income Household wealth S80/S20 income share ratio
	Subjective Well-Being	Life satisfaction Negative affect balance
	Jobs and Work Quality	Employment rate Gender wage gap Long hours in paid work
	Safety	Homicides Gender gap in feeling safe
	Housing	Housing affordability Overcrowding rate
	Work-Life Balance	Gender gap in hours worked Time off
	Health	Life expectancy Gap in life expectancy by education
	Social Connections	Lack of social support Social interactions
	Knowledge & Skills	Students with low skills Student skills in science
	Civil Engagement	Voter turnout Having no say in government
	Environmental Quality	Access to green space Exposure to outdoor air pollution
Resources for Future Well-Being	Economic/Physical Capital	Produced fixed assets Financial net worth of Government Household debt
	Natural Capital	Greenhouse gas emissions per capita Material footprint Red List Index of threatened species
	Human Capital	Educational attainment of young adults Premature mortality Labour underutilisation rate
	Social Capital	Trust in Others Trust in Government Gender Parity in Politics

Source: Adapted from OECD (2017).

Note: regional breakdown is not provided. See Section 4.1 for a discussion of the OECD regional well-being approach.

Aspects of human capital are included in the “mental and physical health” theme and the “knowledge, skills, and innovation” themes. Aspects of social capital have been included in the “community, social connections and cultural participation” and the “civic engagement and cultural expression” themes. The meshing of the dimensions of current and future well-being can lead to incoherence in terms of assessment, as outlined above; this issue is well-documented in the literature (Pearce and Barbier, 2000; Stiglitz *et al.*, 2009; Neumayer, 2013; McGrath *et al.*, 2020; Dasgupta, 2021) and is stressed in not only the CES recommendations, but also the OECD approach (Table 4) that the government acknowledges its own framework is based on.

Government of Ireland (2021) defended this meshing as follows;

in order to ensure that the trade-offs are investigated thoroughly, but that the dashboard is not overly complex and can be easily communicated and used, the first iteration of the Well-Being Framework has incorporated some of the most pertinent aspects of the OECD Future Capitals approach ...

and that

the first iteration of the Well-Being Framework acknowledges the importance of balancing future and current resources, without making premature assumptions on where such trade-offs lie. (Government of Ireland, 2021)

The argument appears to be that the meshing of current and future well-being occurs to prevent over-complexity while incorporating the most important aspects of future well-being. However, comparing the initial framework (Table 1) with the CES and OECD approaches (Tables 3 and 4) it is hard to see how the Irish framework “acknowledges the importance of balancing future and current resources” as there is no explicit distinction between current and future well-being. A review of the initial framework, specifically concerning the concept of sustainability, was conducted by Department of Finance (2022) and published at the end of May 2022. The review acknowledged the lack of clarity in the initial framework and made several recommendations that were subsequently included in an updated framework in June (Government of Ireland, 2022a). The main change, concerning sustainability integration, was the tagging of a 14-indicator sustainability subset of the original 35 indicators.³ Additionally, a dashboard well-being analysis using the framework was then published that included a sub-section titled “Understanding Sustainability in Ireland” (Government of Ireland, 2022b). These changes are welcome improvements, but several issues remain where further strengthening of the concept of sustainable development should be considered.

³ Denoted by * in Table 1.

Firstly, the initial framework was focused on current well-being, as acknowledged by the review (Department of Finance, 2022, p.14), thus one might question if a subset of the original indicators represents the best choice to monitor sustainability/future well-being? For example, three of the 14 indicators within the tagged sustainability subset could not be scored within the dashboard analysis (Government of Ireland, 2022b). More fundamentally, there remains a distinct lack of coverage of natural capital and related environmental indicators within the framework, perhaps the most critical component of sustainable development (Dasgupta, 2021). For example, biodiversity and local air pollution indicators are missing and there are no equivalent indicators/themes to the CES natural capital themes of “land and ecosystems”, “mineral resources” and “energy resources”.

Secondly, the meshing of current and future well-being has remained and may be leading to some confusion in the analysis. For example, the executive summary from Government of Ireland (2022b) summarises as follows:

...the dashboard paints a generally positive picture..., Ireland performs well in 20 indicators. Six indicators show negative performance...the remaining 9 indicators are more nuanced.

The wider analysis contained in the report is more nuanced and is good overall, but some key messages seem confusing. For example, on page 3, sustained medium-term issues are cited:

...while the dashboard provides a positive picture...specific areas...suggest sustained issues over the medium-term across quality of life, sustainability and equality.

However, the medium-term outlook conflicts with the previous assessment in the conclusions, on page 23, “...the dashboard provides a positive picture of the country’s medium-term progress”. Again, a more nuanced analysis follows:

the issue of the environment, climate and biodiversity has been highlighted as an area of significant and persistent concern....a sustained and increasingly urgent concern.

An alternative simplified analysis might summarise that Ireland, overall, performs well within the dimension of current well-being but there are question marks over sustainable development/future well-being. A more nuanced analysis could then follow. This type of confusion is unsurprising given the warnings contained in the international literature against meshing current and future well-being, as detailed above. Longer-term issues such as environmental sustainability often score badly within meshed sustainability indicator sets where the overall scores may be good

(McGrath *et al.*, 2020). The need to focus on longer-term issues is a key part of the rationale for a clear conceptual distinction between current and future well-being. One of the key motivators for the development of well-being frameworks internationally is to move beyond traditional metrics to try and avoid short-sighted policymaking. For example, during the development of the well-being framework in the Netherlands (the Monitor of Well-Being) the Scientific Council for Government Policy concluded that the focus on conventional macroeconomic indicators (such as GDP) leads to the short run being prioritised over the long run (Horlings and Smits, 2019).

Department of Finance (2022) does discuss the CES framework but concludes that the Irish framework is similar in structure. This seems strange as the review finds the Irish approach to be at odds with the OECD framework (Department of Finance, 2022, p.6), as it meshes current and future well-being together. By extension, this is then clearly at odds with the CES framework. In addition to the separation of current and future well-being, the CES framework further emphasises transboundary impacts and intragenerational distributional concerns (e.g. individual/regional). The lack of regional integration within the national well-being framework is discussed below. The review's assessment of the CES framework likely stems from a misunderstanding of the conceptual versus thematic organisation of the CES framework. For example, Department of Finance (2022) notes that the Irish approach is similar to the thematic organisation which purportedly does not require a separation of current and future well-being. However, the CES report notes that it is simply the *presentation* of the indicator set that does not distinguish between the well-being dimensions. The very same themes and indicators that come under the future well-being dimension are still included in the thematic organisation and the actual measurement and analysis of sustainable development still require this distinction to be made. For example, natural capital is represented *implicitly* within the thematic organisation through the themes of "Water", "Air Quality" "Climate" "land and ecosystems", "mineral resources" and "energy resources" just as within the conceptual organisation. The same is true for the other future well-being sub-dimensions. Page 64 of the CES report makes this clear:

the conceptual and thematic categorizations are derived from the [same] theoretical model... They are simply different ways of presenting the same set of indicators (UNECE/Eurostat/OECD, 2014).

The conceptual organisation offers a clear identification of the well-being dimensions and a recognition of the trade-offs between these dimensions. In addition, this categorisation can help identify potential data gaps in measuring sustainable development. The OECD and the academic literature prefer the conceptual approach (Department of Finance, 2022, p.6; Government of Ireland

2022b). The advantages of the thematic categorisation, as preferred by the Government, are that the terminology is less technical and thus may be more suited to policymakers and the public, and policy-relevant themes can be incorporated more easily. Under a thematic approach, the analysis of sustainable development needs to be considered carefully to avoid confusion and short-termism. Moving forward it may be sensible to refine the conceptual framework to provide more clarity on sustainable development/future well-being. The choice of themes/indicators within the national well-being framework, particularly concerning natural capital, should be reconsidered and a greater distinction between current and future well-being across the main messages of the analysis should be contemplated. Utilising both the conceptual and thematic approaches is endorsed by the CES report:

both the conceptual and thematic categorizations have advantages and disadvantages. To make use of the strong points of both categorization methods, they could be used simultaneously based on the links presented. (p.66).

Section 3.1 seeks to provide more clarity around the concept of sustainable development in a coherent and accessible manner with the Irish well-being framework.

3.1 Integrating Sustainable Development within the National Well-Being Framework

An initial amended partial dashboard, that is consistent with the conceptual approach of the CES framework and that is aligned with the Irish well-being framework, is presented in Table 5. These amendments do not appear to overly complicate the framework while providing a focus on the avoidance of meshing together the various dimensions of well-being. The amended dashboard contains two well-being dimensions:

Current Well-Being: consisting of 9 themes:

- Income
- Work and job quality
- Housing and local area
- Mental and physical health
- Leisure and recreation
- Knowledge, skills and innovation
- Inclusion, safety and community
- Environment, climate and biodiversity
- Subjective well-being.

Future Well-Being: consisting of four themes:

- Natural capital
- Economic capital
- Human capital
- Social capital.

Within the initial framework the theme of “income and wealth” represented a clear meshing together of the current well-being theme of “income” and the future well-being theme of “wealth” and thus the amended dashboard contains separate themes of “income” and “economic capital”. Several initial themes were related to various aspects of what the well-being literature considers to be aspects of “social capital” (“safety and security”, “community, social connections and cultural participation” and “civic engagement and cultural expression”). Consequently, within the amended dashboard, these themes have been condensed into “social capital” and “inclusion, safety and community”. “Time use” was re-named “leisure and recreation” in the amended dashboard to better align with the CES framework.

Finally, an aggregate future well-being indicator is suggested, the Genuine Savings (GS) indicator. GS is a leading economic indicator of sustainable development (Hanley *et al.*, 2015). GS is rooted in neoclassical growth theory and measures the annual change in the total aggregate stock of natural, social, physical, and human capital assets and technological progress. Together these assets are referred to as comprehensive national wealth. Economic theory shows that a reduction in comprehensive wealth (negative GS) implies future well-being must fall and thus offers a signal that an economy is on an unsustainable development path (Arrow *et al.*, 2012). The use of such an aggregate indicator is supported under recommendation 11 of Stiglitz *et al.*, (2009) and extensive academic research on Irish GS has been conducted in recent years (Ferreira and Moro, 2011; 2013; McGrath *et al.*, 2019; 2020; 2022a; 2022b).

The usage of a composite monetary index such as GS has attracted criticism as, at least in practice, a high degree of substitutability between natural capital and other capital assets is assumed (See Hanley *et al.*, 2015 for a literature review). There are reasons to believe that some parts of natural capital are irreplaceable. Consequently, other sets of physical indicators across these assets should be considered, to complement monetary aggregates. McGrath and Hynes (2020) detail the various approaches to natural capital accounting across Ireland that may be important in terms of the inclusion of natural capital indicators within a well-being/sustainable development framework. Gnègnè (2019) argues for a tight portfolio approach to sustainable development measurement with as little as three composite indices, with current well-being monitored by the Human Development Index, future well-being by GS and environmental sustainability by the Ecological Footprint indicator.

Table 5: Proposed Dashboard for a National Well-Being Framework

<i>Dimension</i>	<i>Theme</i>	<i>Indicator</i>
Current Well-Being	Income	Median Real Household Disposable Income Households making ends meet with great difficulty Mean Weekly Earnings
	Work and Job Quality	Labour Underutilisation Rate Employment Rate Unemployment Rate
	Housing & Local Area	New Dwelling Completions BER Rating Distance to Everyday Services Housing Affordability Regional Mobility Indicators* (Source: Western Development Commission) NTA Employment accessibility score* (National Transport Authority)
	Mental & Physical Health	Healthy Life Years at birth Pop. Reporting Depression (self-reported) Unmet need for Medical Attention (self-reported) Healthy life years Pop. Share of obesity/smokers/binge drinkers* (Healthy Ireland Survey)
	Leisure and Recreation	Long Working Hours in Main Job Carers providing at Least 20 Hours Care per Week Population satisfied with Time Use
	Knowledge, Skills and Innovation	PISA Scores Lifelong Learning Rate Research and Development Personnel Innovation Scorecard* (European Commission)
	Inclusion, Safety and Community	Murder Rate per 100,000 Population Population Rating their Overall Life Satisfaction as High Persons Killed or Injured on Roads Pop. who Feel Lonely (self-reported) Persons who Experienced Discrimination in the Previous 2 Years Perceived Social Inclusion
	Environment, Climate and Biodiversity	Air Quality* (EPA) Water Quality Recycling Biodiversity indicators* (INCASE Project)
	Subjective Well-Being	Population Rating their Overall Life Satisfaction as High

Table 5: Proposed Dashboard for a National Well-Being Framework (Contd.)

<i>Dimension</i>	<i>Theme</i>	<i>Indicator</i>
Future Well-Being	Natural Capital	National greenhouse gas emissions (million tonnes carbon dioxide equivalent (Mt CO ₂ eq) Tonnes of CO ₂ equivalent per capita Water Bodies assessed as High or Good Local Air Pollution Emissions and Damage costs* (EPA; Public Spending Code) Ecological Footprint (Global Footprint Network) Renewable electricity capacity* (SEAI/CRU)
	Economic Capital	Gross Capital formation/Net Capital Formation* (National Accounts) Median Household Net Wealth Government Net Worth Household Debt* (National Accounts)
	Human Capital	R&D expenditures* (National Accounts) Education Expenditures* (Dept. of Education) Educational Attainment* (Census)
	Social Capital	Pop. with at least 2 people close enough to count on Pop. who did not Feel Depressed or Downhearted in the Last 4 Weeks Pop. who worries they could be a Victim of a Crime (self-reported) Voter Turnout* (CSO) Satisfaction with How Democracy Works in Ireland Rate of Volunteering* (CSO module on Volunteering)
	Changes in Comprehensive Wealth	Genuine Savings Indicator* (see McGrath, Hynes & McHale 2020).

Source: Author's analysis.

Note: * Denotes indicators not included in the initial CSO Well-Being Data Hub. For each of these indicators, a suggested potential source is provided in brackets.

IV THE MISSING LINK OF REGIONAL INTEGRATION

National development is maximised when regions can harness the assets at their disposal to reach their potential. Using the logic of the framework above, sustainable regional development ultimately depends on interactions between regional assets (such as natural, physical, and human capital), national and local institutional capacity and entrepreneurial and natural ecosystems. Sustainable

regional development policy, in this context, involves a focus on harnessing regional capital assets and underlines the role of public policy to enable regions to harness these assets, to promote entrepreneurial and environmental ecosystems; to attract skilled, creative, and innovative people; to provide high-quality cultural and recreational facilities; and to encourage the development of community social networks.

The relationship between sustainable development and regional development is not limited to the contribution that regions can make to national development but also relates to how a broader focus on well-being/sustainable development can enhance regional development and equity. For example, the natural assets on which the green economy depends are often located in more rural and less developed regions. The transition towards a greener, more competitive, low-carbon economy will increase the value placed on the assets of such regions, and consequently their role and importance to the national economy (WDC, 2012). The determinants of regional economic performance are mutually reinforcing and, thus, a cross-sectoral approach to policy formulation, delivery and evaluation is essential (McHenry and White, 2010). Given the stated desire for the well-being framework to become an overarching focus for policymaking, there is a risk that a lack of focus on regional issues may lead to unclear monitoring of progress and thus may distort policy choices in relation to regional development. A national well-being framework should therefore attempt to seriously consider the importance of the integration of regional issues, even at the early stages of development. While a specific regional policy focus is important, it should also be recognised that all policies can have regional impacts. Consequently, regional development cannot be viewed in isolation or as the responsibility of a single policy document or Department/Agency.

Evaluation and monitoring represent key tools to ensure the effectiveness of public expenditure and that public-funded programmes, and initiatives, achieve their stated goals and objectives. Whelan *et al.* (2021) reviewed international approaches to the evaluation of rural and community development and noted specific challenges associated with measuring the causal impact of both community and rural development programmes. However, the authors concluded that the monitoring and evaluation of such development programmes can be further enhanced through mixed methods approaches (including quantitative and qualitative techniques), combined with improvements in the type and consistency of data collected, and this is an area where the well-being framework can provide a useful resource.⁴

The Irish framework is heavily nationally focused. Within the CSO data hub, just three indicators contain any regional breakdown (Table 1). Furthermore, the regional breakdown is generally limited to urban/rural. Some of the indicators within the data hub are available at a more disaggregated spatial scale but are not reported within the hub (e.g. dwelling completions); many others cannot currently

⁴ I thank an anonymous reviewer for this point.

be disaggregated. The lack of focus on regional issues is also evident within the wider well-being report. The regional or place-based nature of well-being is acknowledged in a short paragraph “*well-being can vary depending on location. These differences can be based on whether an individual is based in more urban or rural locations*” (Government of Ireland, 2021). The report suggested that regional integration would be provided, at least on a limited basis, where the national data could be disaggregated “*differences will be drawn out, depending on data availability, through disaggregation by region, county or urban/rural*” (Government of Ireland, 2021) but as noted above there are indicators within the well-being data hub reported only at the national level that could be further disaggregated.

Considerations for regional integration are provided in Section 4.1. Regional integration will naturally be constrained by data availability and there is also a trade-off between data availability and data granularity. For example, there is greater availability of regional data, based on the Nomenclature of Territorial Units for Statistics (NUTS), which is a European Union geocode standard. Ireland is broken into NUTS 2 (Northern and Western; Eastern and Midland; Southern) and the more granular NUTS 3 levels (Border; West; Mid-West; South-East; South-West; Dublin; Mid-East; Midlands). The most comprehensive county-level and more granular Electoral Division (ED) and Small Area Population Statistics (SAPS) are contained in Census publications.

4.1 Integrating Regional Development within the National Well-Being Framework

In terms of regional integration, two options immediately present themselves. The first is the preferred approach linking, as much as feasible, the regional indicators across the themes and dimensions of the well-being framework. The key benefit of this approach is that it would align closely with the CES recommendations, the Regional Monitor of Well-Being in the Netherlands, and with the approach that underpins Project Ireland 2040, Ireland's overarching planning framework. Within the planning framework, the set of national objectives is linked back through regional targets and regional projects designed to meet those overall national goals within the National Planning Framework (NPF) and National Development Plans (NDP). Those regional goals are then targeted at lower spatial scales through the Regional Spatial and Economic Strategies developed by the Regional Assemblies and the County Development Plans developed by the Local Authorities. The main challenge is the data availability and granularity to ensure a consistent approach. For some themes and indicators, there can be a clear link established from ED/SPAS – county – region – national; this will not be feasible for others. Where a clear link cannot be established, alternative indicators at each level may seek to measure a consistent theme. Table 6 provides a partial draft regional dashboard with suggested indicators that are integrated with the themes from the amended framework

Table 6: Proposed Regional and County Level Integration

<i>Dimension</i>	<i>Theme</i>	<i>County Level</i>	<i>Potential Sources</i>	<i>NUTS 2/3 Regional Level</i>	<i>Potential Sources</i>
	Income	Household Income	CSO County Incomes & Regional GDP	Household Income Regional GVA Deprivation Index	CSO County Incomes & Regional GDP Pobal
	Work	Live Register Enterprise Growth Share of Micro-enterprises	CSO Business Demography Census	Live Register Unemployment/Employment Enterprise Growth Share of Micro-enterprises Households with low work intensity	CSO Business Demography Census LFSCSO/ Eurostat Regional Database
Current	Housing & Local Area	Dwelling Completions	CSO	Dwelling Completions	CSO
		Commencement Notices	LGMA	Commencement Notices	LGMA
		Average Rent	RTB	Average Rent	RTB
		Average House Price	RPPI	Average House Price	RPPI
	Health	Commercial/Residential Vacancy	GeoDirectory Census	Commercial & Residential Vacancy	GeoDirectory Census
		Road Traffic	RSA	GPs (per 100 000 inhabitants)	Dept. of Health
		Deaths/injuries	CSO Vital Statistics	Hospital beds (per 100 000 inhabitants)	OECD
		Infant Mortality rate		Health Care Resources	Healthy Ireland Survey
		Deaths due to poor mental health & self-harm			CSO/Eurostat Regional Database

Table 6: Proposed Regional and County Level Integration (Contd.)

<i>Dimension</i>	<i>Theme</i>	<i>County Level</i>	<i>Potential Sources</i>	<i>NUTS 2/3 Regional Level</i>	<i>Potential Sources</i>
	Leisure & Recreation	Beach Flag Awards	An Taisce	Tourism Statistics	CSO/Eurostat Tourism Statistics
		Green Coast Awards			
	Knowledge, Skills & Innovation	Educational attainment	Census	Employment in Knowledge Intensive Service Sectors	Census CSO Business Demography CSO/Eurostat Regional Database
		Employment in Knowledge Intensive Service Sectors	CSO Business Demography	Education & Training Early Leavers Human resources in science & tech Regional Innovation Scorecard	CSO Business Demography CSO/Eurostat Regional Database
Current well-being	Society, Safety & Equality	Voter Turnout	CSO	Regional Poverty & Social Exclusion Indicators	CSO/Eurostat Regional Database
		Climate, Environment & Biodiversity	Compliant water schemes Litter Levels % fossil fuels for heating Air & Water Quality Household Waste Biodiversity Indicators	Regional Environmental & Energy Statistics % of fossil fuels for central heating Household Waste per capita Air & Water Quality Biodiversity Indicators Litter Levels	CSO/Eurostat Regional Database EPA CSO Environmental Indicators NOAC
Subjective Well-Being	Survey Data	Survey Data	CSO Well-Being Modules	Survey Data	CSO Well-Being Modules

Table 6: Proposed Regional and County Level Integration (Contd.)

<i>Dimension Theme</i>	<i>County Level</i>	<i>Potential Sources</i>	<i>NUTS 2/3 Regional Level</i>	<i>Potential Sources</i>
Natural Capital	Beach Flag & Coast Awards	An Taisce	Beach Flag & Coast Awards	An Taisce
	Bioeconomy Employment	Census	Bioeconomy Employment	Census
Economic Capital	Mineral & Energy Resources	CSO Business	Mineral & Energy Resources	CSO Business
	Timber Resources	Minerals Ireland	Timber Resources	Demography
	Biodiversity Indicators	Bord na Mona	Biodiversity Indicators	Minerals Ireland
	Renewable Energy Capacity	Bord Gais	Renewable Energy Capacity	Bord na Mona
		Demography Teagasc		Bord Gais Demography Teagasc
Future Well-Being	Housing Stock	Dept. of Housing	Gross Fixed Capital Formation	National
	Pavement Surface Condition	Census	Household Wealth	Accounts
	Index	LGMA	Pavement Surface Condition	LGMA
	Road, rail, & inland waterways networks	TII/NTA Irish Rail	Index Road, rail, & inland waterways networks	TII/NTA Irish Rail
Human Capital	Population Demographics	Census	Population Demographics	Census
	Dependency Ratios	Dept. of Housing	Dependency Ratios	CSO/Eurostat
	Third Level Grants awarded	CSO	R&D expenditures	Regional
	Educational Attainment		Third Level Grants awarded	Database
Social Capital	Population Growth		Population Growth	
	Voter Turnout	CSO	EU Competitiveness Index	CSO
	Deaths due to mental health	CSO Vital Statistics	Deaths due to mental health	CSO Vital Statistics

Source: Author's analysis

presented in Table 5. Given counties and regions will contain diverse populations, it may also be useful to employ the six-way urban and rural classifications utilised by CSO (2019). CSO (2019) included themes of income, health, education, and housing and thus one can easily imagine an expansion to align with the themes of the well-being framework and would permit additional regional insight.⁵

An alternative approach would be to adopt the OECD regional well-being approach. This approach involves measuring regional as a complement to a national framework. The OECD uses 11 regional well-being themes with similarities to the national framework: “income”, “jobs”, “housing”, “education”, “health”, “environment”, “safety”, “civic engagement and governance”, “access to services”, “community, and life satisfaction” (Table 7). In contrast to the OECD national framework, the regional framework focuses solely on current well-being and an additional theme of “access to services” is included. While the OECD regional framework provides a basis for measuring regional well-being, the focus is on current well-being at the NUTS 2 regional level and thus is not fully integrated within the national OECD framework. The benefit of this approach is to offer a simple and accessible way to examine regional issues in a complementary manner to a broader national framework. The main challenge with this approach is to ensure a focus on future regional well-being. Without the appropriate consideration of regional assets and related comparative advantages and weaknesses, there is a risk of substitution of regional and national capital stocks which may be problematic, particularly in terms of environmental assets. One extreme example would be that rural natural capital might be depleted but, as long as it is replaced in a central urban location this would be consistent with national non-declining natural capital. Another example may be a concentration of national public physical capital in the capital city that may be viewed, in budgetary outlay, as offsetting a decline in regional infrastructure. There may be data constraints that curtail a full integration of regional well-being and national well-being, but these potential trade-offs should be considered carefully. Fundamentally, ensuring the many facets of successful regions are present and working together in each region, and developing each place’s comparative advantage, should form the basis for policies to support regional development.

4.2 Potential Policy Integration with the National Planning Framework

The National Planning Framework (NPF) has set out the vision for the development of Irish society over the coming decades. This vision is then encapsulated by ten National Strategic Objectives (NSOs) and surrounds more balanced regional development;

⁵ The urban areas include a distinction between ‘cities’, ‘satellite urban towns’, ‘independent urban towns’, while the rural areas include ‘rural areas with high urban influence’, ‘rural areas with moderate urban influence’ and ‘high rural/remote areas’.

Table 7: OECD Regional Well-Being Themes

<i>Theme</i>	<i>Indicators</i>	<i>Regional Breakdown Provided</i>
Income	Household disposable income per capita	NUTS2
Jobs	Employment rate Unemployment rate	NUTS2
Housing	Number of rooms per person	NUTS2
Health	Life expectancy at birth (years) Age-adjusted mortality rate (per 1000 people)	NUTS2
Education	Share of the labour force with at least secondary education	NUTS2
Safety	Homicide Rate	NUTS2
Environment	Estimated average exposure to air pollution in PM2.5	NUTS2
Civic Engagement	Voter Turnout	NUTS2
Accessibility of Services	% Of Households with Broadband Access	NUTS2
Community	% Of people who have friends/relatives to rely on	NUTS2
Life Satisfaction	Self-reported life satisfaction	NUTS2

Source: Adapted from OECD.

...Dublin, and to a lesser extent the wider Eastern and Midland area, has witnessed an over concentration of population, homes and jobs. We cannot let this continue unchecked and so our aim is to see a roughly 50:50 distribution of growth between the Eastern and Midland region, and the Southern and Northern and Western regions... (Sec 1.2, NPF)

There will be natural overlaps between metrics contained within a well-being/sustainable development framework and potential metrics to monitor the NSOs. One approach would be to include the NSOs directly as specific themes within the well-being/sustainable development framework. Alternatively, the indicators within the well-being/sustainable development framework could be cited as relating to the NPF but also relevant to a particular theme. The CES recommendations note the importance of flexibility in allowing for specific policy-relevant themes and indicators, even where these indicators are relevant only over shorter periods.

Table 8 provides some suggested indicators and links between the NSOs and related well-being themes. For example, the NSO of “a strong economy supported by enterprise, innovation and skills” is related to the well-being theme of “knowledge, skills and innovation”. Several NSOs are linked with the well-being

Table 8: Proposed Indicators for Integrating the National Planning and Well-Being Frameworks

<i>NSO Theme</i>	<i>Potential Indicators</i>	<i>Related Well-Being Theme</i>	<i>Potential Source</i>	<i>Regional Breakdown Feasibility</i>
Compact Growth	Population Growth Targets within NPF	Human Capital	Census Irish Population Estimates from Administrative Data Sources	ED Level
Enhanced Regional Accessibility	Rural mobility index Journey times to urban centres etc. Regional NDP Projects & Expenditure TII strategy indicators	N/A – Potential Well-Being gap	Western Development Commission (forthcoming) TII (forthcoming) NTA CSO Government of Ireland	Limited ED Level
Strengthened Rural Economies & Communities	Broadband Access Employment Incomes URDF/RRDF/ERDF Investment Jobs supported by EI/IDA	Inclusion, Safety & Community	Census CSO Business Demography Dept of Housing DRCD Regional Assemblies EI IDA	Limited ED Level
Sustainable Mobility	Active travel indicators: Mode of transportation LEV Uptake EV infrastructure	N/A – Potential Well-Being gap N/A	Western Development Commission (forthcoming) CSO Transport Statistics CRU ESB Networks	Limited ED Level

Table 8: Proposed Indicators for Integrating the National Planning and Well-Being Frameworks (Contd.)

<i>NSO Theme</i>	<i>Potential Indicators</i>	<i>Related Well-Being Theme</i>	<i>Potential Source</i>	<i>Regional Breakdown Feasibility</i>
A strong Economy Supported by Enterprise Innovation & Skills	Business Enterprise & employment growth Employment in Knowledge Intensive Services Education, skills, & training	Knowledge, Skills & Innovation	CSO Business Demography Census Labour Force Survey Census	Limited ED Level
High-quality International Connectivity	Connectivity to & passenger/freight statistics at airports & ports Tourism indicators	N/A – Potential Well-Being gap	CSO Transport Statistics TII Strategy Indicators (forthcoming)	County Level
Enhanced amenity & heritage	Access to cultural & recreational services (e.g. walking routes, cycleways OPW sites heritage sites)	Leisure & Recreation Climate, Environment & Biodiversity Natural Capital	OPW Coilte NPWS Fáilte Ireland	Limited ED Level
Transition to a low carbon & Climate-resilient society	LEV's licensed Household heating fuel type BER ratings Sustainable Energy Communities	Climate, Environment & Biodiversity Natural Capital	CSO Vehicle Registrations Domestic Building Energy Ratings CSO Environmental Indicators	County Level
Sustainable management of Water, Waste, & other Environmental Resources	Waste & Environment indicators from EPA water quality & service statistics Climate Action Fund Investment	Climate, Environment & Biodiversity Natural Capital	Local Authority Performance Indicators LGMA EPA DECC	County Level
Access to quality Childcare, education, & health services	Access to services, Childcare & health statistics (e.g. primary care centres; ambulance response times)	N/A – Potential Well-Being gap	HSE Department of Health Healthy Ireland Survey	Limited ED Level

Source: : Author's analysis.

themes of “natural capital” and “environment, climate and biodiversity”. However, there is a considerable gap concerning the specific policy focus placed within the NSOs in relation to public service provision (“access to quality childcare, education, and health services”) and regional connectivity (“enhanced regional accessibility”; “high-quality international connectivity”; and “sustainable mobility”) that is missing from the current version of Ireland’s well-being framework. It seems sensible that the well-being framework should be aligned to the long-term policy goals of the NPF and thus a potential area for consideration is the addition of well-being themes such as “public service provision” or “access to services” as per the OECD regional well-being framework as well as “regional connectivity and accessibility”. Additional themes would be beneficial in terms of rural and regional development policy as more rural areas often suffer from worse accessibility to employment, key public services and leisure opportunities, compared to urban areas.

Understanding regional connectivity and accessibility is complex. The enhancement of mobility is one of many factors needed to improve rural accessibility (Vitale and Cotella, 2020). Understanding the patterns of mobility in rural areas is the first step to achieving this goal and ongoing work in this area should yield several valuable data sources. The Western Development Commission is finalising a regional mobility index as a tool to help towns understand their mobility assets and services and to think about mobility as a key part of a functioning town. Transport Infrastructure Ireland (TII) is currently developing a strategy for the national roads network that aims to enable the delivery of the NPF and support the realisation of several NSOs.

V CONCLUDING REMARKS

The Irish government has made progress in the development of a national well-being framework and associated dashboard analysis. The dashboard permits a high-level evidence base and context for the identification of potential policy priorities. The government is cognisant that the framework is in the early stages of implementation. Within the international context, the New Zealand Treasury, a pioneer of national well-being implementation, released the first iteration of its Living Standards Framework in 2011. It took a further eight years of development before its first well-being budget was produced in 2019. This study contributes to the continued advancement of the national well-being framework by offering a systematic review focusing on two key missing links whose omission weakens the framework’s coherence.

The first is the fundamental risk of meshing together current well-being and future well-being i.e. a failure to appropriately acknowledge the inter-relationship between well-being and sustainable development. Considerations for greater

strengthening of the concept of sustainable development within the framework were presented including an amended dashboard based on the themes in the initial well-being framework aligned to the CES recommendations for measuring sustainable development. The second is the lack of regional integration. National development is maximised when regions can harness the assets at their disposal to reach their potential. Sustainable regional development policy should seek to enable regions to harness their assets to promote natural and entrepreneurial ecosystems; to attract skilled, creative, and innovative people; to provide high-quality institutions, cultural and environmental facilities; and to encourage the development of social networks. Given the stated desire for the well-being framework to become an overarching focus for policymaking, insufficient regional integration risks unclear monitoring of progress and thus may distort policy choices and evaluation in relation to regional development. Ideally, a well-being framework would be used at various stages of the policy cycle to help inform decisions to support sustainable regional development policy. This study provided considerations for how regional integration may be addressed within a national framework. A suite of indicators at a more disaggregated regional level that intersects relevant well-being themes was presented.

The government has noted that, over time, the intention is for the well-being framework to be used to aid in the identification of policy priorities and the evaluation of policy measures. This study provides a practical example of potential policy integration with the NSOs that underpin the NPF with a set of suggested indicators, regional breakdown, and links with related themes within the national well-being framework. This exercise revealed a considerable gap in the themes within the well-being framework and the policy priorities of the NSOs such as public service quality and provision as well as regional connectivity and accessibility.

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