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A comprehensive analysis of well-being frameworks applied in Australia and their suitability for Indigenous peoples

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ABSTRACT

Purpose: Well-being is a complex, multi-dimensional, dynamic, and evolving concept, covering social, economic, health, cultural and spiritual dimensions of human living, and often used synonymously with happiness, life satisfaction, prosperity, and quality of life. We review the existing key wellbeing frameworks applied in Australia both for the wider public and Indigenous peoples. The aim is to provide a comprehensive overview of various applied frameworks, along with a critical analysis of domains or dimensions comprising those frameworks, and to analyse the role of nature in those frameworks.

Methodology: We conducted a critical analysis of the main frameworks applied in Australia to date to measure the well-being of the mainstream (mainly non-Indigenous) and Indigenous populations. This study is particularly timely given the Australian Government's interest in revising the well-being frameworks as mentioned in the Government "Measuring What Matters" statement.

Results: The existing well-being frameworks in Australia either overlook or hardly consider the role of nature and its services which are important to support human well-being. Likewise, for Indigenous peoples "Country" (Indigenous clan land) is vital for their well-being as their living is imbued with "Country". The role of nature/"Country" needs to be considered in revising the well-being frameworks, indicators and measures to inform and develop appropriate policies and programs in Australia.

Conclusion: To develop appropriate welfare policies and programs for achieving socio-economic and other wellbeing outcomes, it is essential to evolve and conceptualize well-being frameworks (and related indicators and measures) in line with people's contemporary values, particularly considering the role of nature and its services.

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Human wellbeing; socio-economic wellbeing; Indigenous wellbeing; Wellbeing measures in Australia; nature and nature's services

1. Introduction

Well-being is a broad and complex term, covering social, economic, health, cultural and spiritual dimensions of human living, and often used synonymously with happiness, life satisfaction, and quality of life across a range of scales from individual to community to national and global (Rieger et al., 2023). It is dynamic and multidimensional. In Australia, the Australian Bureau of Statistics (ABS, 2001) defines wellbeing as a state of health and sufficiency in all aspects of life, across different time-scales. More broadly, it is a desired state of being which can vary at the individual, family, and societal scales (Webster et al., 2008). On an individual scale, wellbeing includes having good health and being well-off in key aspects of life such as health, family life, work, housing, culture and leisure. At a broader societal scale, wellbeing comprises the social, cultural, economic, natural and polity environments that are all interconnected, complex and dynamic. Recognizing the complexity, the Organisation for Economic Co-operation and

Development (Organisation for Economic Co-operation and Development [OECD], 2020) states that there is no single definition of human wellbeing because the term includes several facets with complex interactions and the respective importance of each aspect is difficult to identify. There is an overall understanding in the field that "wellbeing" includes the satisfaction of material needs, good health, the experience of freedom, health, personal security, good social relations and a healthy natural environment—a "Quality of life", as suggested by Costanza et al. (2007).

The inherent subjectivity and multidimensionality of conceptualizing wellbeing are discussed by many scholars (Alkire, 2002; Diener & Seligman, 2004; Diener & Suh, 1997; Nussbaum & Sen, 1993; Rieger et al., 2023; Sen, 1993, 1999), and it is further complicated by the operationalization of various concepts into measures for evaluating wellbeing. Despite the widespread recognition that wellbeing is multidimensional, with both subjective and objective aspects,

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and also context- and people-specific, the tendency in development discourse has been to establish universal criteria and indicators for the measurement of progress towards wellbeing to inform policy and future development programs (ABS, 2001; OECD, 2020). This thinking has led to the idea of developing a universal set of indicators that offer the advantage of providing an overall picture of wellbeing that can be compared at different local, national or regional scales and over time. To address that, the OECD-led research in the past years has been influential in guiding wellbeing frameworks applied in developed countries, including Australia. Keeping up with the recent advances and recognizing that macro-economic attributes of welfare fail to reflect how ordinary people live, the OECD under the “Better Life Initiative” has now placed a strong emphasis on improving the existing frameworks, developing frameworks and indicators that have a more direct bearing on people’s life (OECD, 2020). For example, a recently proposed OECD framework focuses on four key dimensions, i.e., natural, social, human, and economic capital, in measuring future wellbeing (Figure 1).

In Australia, the Federal Government recently acknowledged the failure of conventional socio-economic wellbeing measures to provide a holistic

understanding of people’s wellbeing, and the need to consider a broad range of social and environmental factors (Australian Government, 2022). In 2022, the Government announced the release of a stand-alone “Measuring What Matters” Statement, to align with the OECD framework of wellbeing (Australian Government, 2022; <https://treasury.gov.au/consultation/measuring-what-matters-2022>). Submissions were invited on how to better measure what matters to Australians. There are currently several national and state/territory or sector (especially health) specific frameworks that mostly focus on social and emotional wellbeing. However, an overarching framework offering a holistic picture of people’s wellbeing, including contemporary perspectives, is lacking. To address this gap, we conduct a detailed analysis of existing frameworks that are either led or applied by the Australian Government, to understand and develop an overall perspective on how wellbeing is currently viewed and measured in Australia. To do so, we focus on the key Australian wellbeing frameworks generally applied for both Indigenous and non-Indigenous peoples, followed by those exclusive to Indigenous peoples. While analyzing the frameworks, we highlight the contemporary developments in the wellbeing concept and assess their consideration in the Australian context.

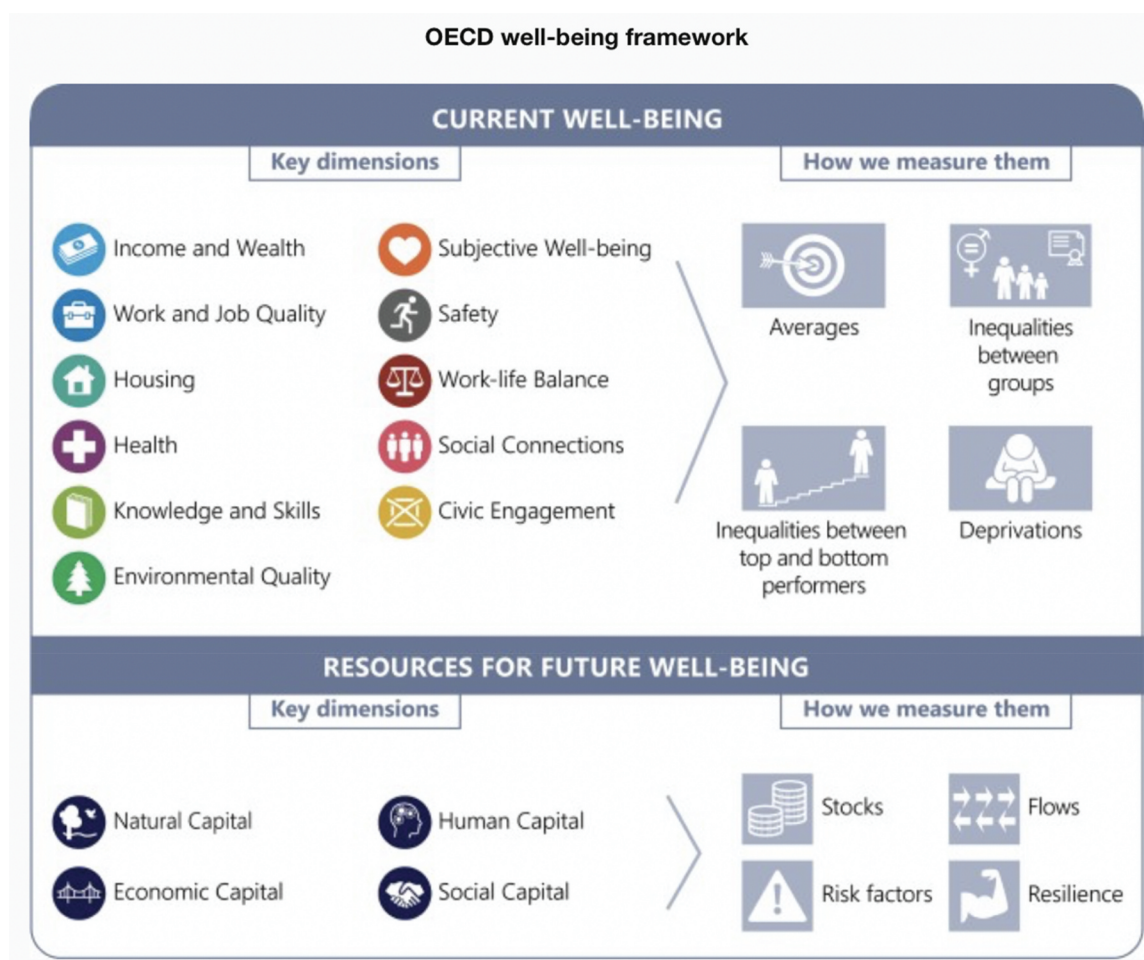


Figure 1. The OECD framework (2020: <https://www.oecd.org/wise/measuring-well-being-and-progress.htm>).

To inform the development of a holistic well-being framework in Australia, this paper offers an overview and critical analysis of the main frameworks applied to date to measure the wellbeing of the mainstream (mainly non-Indigenous) and Indigenous populations. This study is particularly timely given the Australian Government's interest in revising the wellbeing frameworks as mentioned in the "Measuring What Matters" statement (Australian Government, 2022). In line with recent progress in reflecting nature's role in human wellbeing (Sangha et al., 2022; Bourke et al., 2022; OECD, 2020; Loveridge et al., 2020; Government of New Zealand, 2019; Millennium Ecosystem Assessment [MA], 2005; Costanza et al., 2007, and others), this analysis also highlights how different Australian frameworks contemplate attributes related to nature and its services. We highlight key dimensions of each framework, its application, and offer a critical evaluation for policy decision-makers concerning contemporary perspectives on wellbeing. In particular, we highlight the nature-related attributes that play a vital role in Indigenous well-being and can inform policy decision-making.

In the following sections, we review the main well-being frameworks applied in Australia for the wider public in view of contemporary advances, especially for considering the role of nature and its services for human well-being (Section 2). We then focus on those applied or developed specifically for Indigenous people (Section 3). Each framework is followed by a description including attributes, purpose, application, critical analysis, and limitations. In Section 4, we analyse the Australian wellbeing frameworks in relation to the OECD "Better Life Initiative" framework. Following this, we present discussion and conclusion (Section 6) at the end.

This study does not involve human participants, and the ethical clearance does not apply.

2. Measuring wellbeing in Australia – Indigenous and non-indigenous people

The current situation of measuring wellbeing in Australia, as discussed below, includes the application of specific frameworks for the main purpose of informing policies and programs. These frameworks were selected based on their application and/or research led by the Australian Government (directly or indirectly) and the authors' experience of working in the field. The main frameworks studied include common frameworks applied for both Indigenous and non-Indigenous peoples such as the socio-economic wellbeing framework by the Australian Bureau of Statistics (ABS, 2001); the Australian Treasury's wellbeing framework (2004); the ABS social framework (2015); the Australian Institute of Health and Welfare (AIHW, 2009) framework; Measures of Australia's Progress (ABS, 2013);

and the Indigenous-specific frameworks such as social and well-being framework (Commonwealth of Australia [NATSISS] (2017); Mayi Kuwayu framework (Lovett et al., 2020); and Interplay wellbeing framework (Cairney et al., 2017) (Table I). A common feature among these frameworks is that each specific framework targets particular policies or programs, for example the ABS (2001) informs socio-economic policies and programs and the AIHW (2009) framework welfare services, and the Indigenous-specific frameworks are typically aimed at informing health and social and emotional well-being (Table I). We analyzed each of these frameworks for the consideration of socio-economic and environmental-related features, purpose, application, and context (Indigenous or non-Indigenous) followed by drawbacks, if any. In line with recent advances in wellbeing research, as mentioned in section 1, our focus was on understanding and analysing the role of nature and its services in all those selected frameworks and their suitability to the Indigenous context.

2.1. The ABS socio-economic framework (2001)

This framework is developed and applied by the Australian Bureau of Statistics (2001) which is the principal government agency responsible for reliable, independent, and socio-economic data and offers directions for policy development. The ABS defines wellbeing as "a state of health or sufficiency in all aspects of life" and adopts a pragmatic view that reflects wellbeing from socio-economic characteristics. These socio-economic attributes include economic resources, work, education and training, health (life expectancy and infant mortality), housing, family and community, crime and justice, and culture and leisure (Figure 2). Following this framework, wellbeing is measured every five years, for both Indigenous and non-Indigenous people.

The main limitations of this framework include a focus on the socio-economic wellbeing attributes only, suiting the mainstream population and omission of nature or *Country* (a term often used to denote Indigenous clan lands where people have familial relationships) related attributes that can be important for many non-Indigenous and Indigenous peoples in the contemporary era (details in Table I).

2.1.1. Enhancement of the basic ABS framework by Webster et al. (2008)

The ABS socio-economic framework was extended to include a spectrum of personal and community resources (Figure 3). Personal resources include attributes such as life experience, attitudes and beliefs. Similarly, community "resources" including human, economic, natural and social capital are incorporated. Both

Table I. List of main wellbeing frameworks applied in Australia and related key features and limitations.

Framework by	Key features	Limitations
ABS (2001) socio-economic framework	• Main focus on socio-economic attributes—economic resources, work, education and training, health (life expectancy and infant mortality), housing, family and community, crime and justice, and culture and leisure. • Applied for both Indigenous and non-Indigenous people. • An important framework to inform welfare and socio-economic policies and programs. • Well-established dataset and process to collect data on the socio-economic wellbeing of both Indigenous and non-Indigenous populations every 5 years.	• Mainly focuses on the socio-economic wellbeing attributes, suiting the mainstream (mainly non-Indigenous) population. • No consideration of nature or <i>Country</i> (a term often used to denote Indigenous clan lands where people have familial relationships) and related attributes that can be important for the wellbeing of many non-Indigenous and Indigenous peoples in the contemporary era. • No attempt to consider overarching wellbeing measures at the individual or societal levels, given quite an extensive 5-yearly data collection process. • Considers only objective measures and omits subjective measures which are equally important for wellbeing.
The Australian Treasury's wellbeing framework (2004)	• Mainly to inform policies on core values of freedom and utility • Key attributes include the level of freedom, consumption possibilities, risk that people are willing to undertake, and complexity to deal with.	• Covers only two main attributes of wellbeing, i.e., freedom and utility and omits other attributes such as employment, health, education, etc. that also directly influence those two attributes. • Lack of integration with other wellbeing frameworks
ABS social framework (2015)	• Focus on social statistics—social issues, ideas, attitudes and behaviours and aspirations related to family and community living, health, culture and leisure, economic wellbeing, housing, etc. • Mainly to inform policies linked to social affairs.	• The main emphasis on social aspirations which can be quite different among various population groups. • Mainly applicable to the mainstream population as aspirations of Indigenous and other groups from different cultural backgrounds can vary. • very narrow focus on nature/<i>Country</i>-related attributes by including that Australians want to have healthy built and natural environment, applying the same for non-Indigenous and Indigenous people, and despite the fact that natural and built environments are quite different with the former being irreplaceable and vital for human living while the latter can be replaced. • The frequency of its application and scale is not clear.
The Australian Institute of Health and Welfare (AIHW, 2009) framework	• Focus on four main domains—safety, social cohesion, environment and social connections and the related demographic and socio-economic factors. • Main purpose is to inform welfare services.	• The main focus is on the needs of the welfare system i.e., services for people, both Indigenous and non-Indigenous, but the type of services can vary among those groups. • The wellbeing domains include financial wellbeing, work, education and skills, health and subjective wellbeing, and housing, without considering the role of the natural and social environment. • A lack of consideration of nature/<i>Country</i>-related attributes which play a vital role in Indigenous wellbeing where social relations are also shaped by connections to <i>Country</i>. • A limited focus on understanding overall people's wellbeing (both Indigenous and non-Indigenous) where community and government support structures and institutions also play a key role.
Measures of Australia's Progress (ABS, 2013)	• Main aim is to measure social, economics, governance and environmental dimensions of progress.	• Lack of integration among the four domains—society, economy, governance, and the environment. Each domain stands alone without considering how changes in one domain can impact the other. • Measurements of the environmental attributes are simple and stand-alone, and these do not relate to people's wellbeing. For example, number of species are reported as stand alone, whereas the diversity of species can link well with the economy, and the individual and societal wellbeing. • No attempt to link how environment is related with people's well-being or the modern economy whereas it is well recognized now that environment is the foundation for a society in which the economy is embedded.

(Continued)

Table I. (Continued).

Framework by	Key features	Limitations
INDIGENOUS FRAMEWORKS		
Social and well-being framework (Commonwealth of Australia [NATSISS] (2017)	• Deals with social and emotional Indigenous wellbeing. • Focuses on “self” while considering connections to body, mind and emotions, family and kinship, community, culture, country, and spirit, spirituality and ancestors.	• Individualist focus on “self” without recognizing that people’s connection to family and community also directly influence “self” • Lack of consideration of the socio-economic, cultural and historical circumstances of individuals. • Limited consideration of an individual’s “self” connections with <i>Country</i> whereas <i>Country</i> is like a social entity. • Limited and narrow consideration of community and family-based connections that play a vital role in “self”.
Mayi Kuwayu framework (Lovett et al., 2020)	• Mainly focuses on Indigenous health. • Highlights how cultural domain, which includes connections to country, beliefs and knowledge, language, family and kinship, etc. interact with health and well-being of Indigenous people.	• Main focus is on Indigenous health, not overall well-being which includes several socio-economic and cultural facets of people’s life. • Lack of consideration of several socio-economic factors, particularly economics that plays a vital role to enable people to be employed, enjoy freedom and leading their own lives which ultimately connects with health.
Interplay wellbeing framework (Cairney et al., 2017)	• Key wellbeing domains education, health and employment considered in relation to community, empowerment, and culture. • Considers the interaction of factors affecting key wellbeing domains.	• Limited for considering only three domains of wellbeing (employment, health and education) whereas community or culture also form the web of well-being. • Application of this framework is limited to the selected communities at this stage.

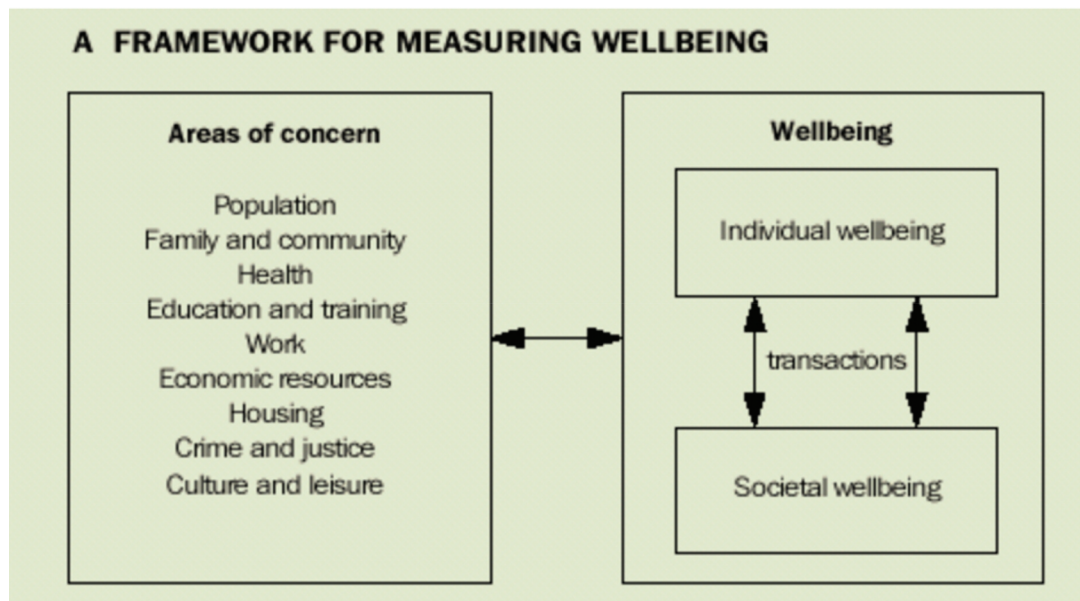


Figure 2. ABS measures of wellbeing (ABS, 2001, catalogue no. 4160.0).

these resources interact through individual and societal wellbeing attributes. However, the meaning of personal or community resources is confusing and the framework does not exactly mention what they entail. The indicators for each domain and application of this framework are not clear. The concept was proposed mainly for social statistics, but not applied. However, such ideas relating to community resources including various capitals are now well-established by the OECD, 2020 under four categories i.e., human, social, economic and natural capital.

2.2. The Australian treasury's wellbeing framework

For policy purposes and to embrace the core values of freedom and utility, the Australian Treasury has developed a wellbeing framework as shown in Figure 4 (Australian Treasury, 2004). The key dimensions of this framework include: 1. the level of opportunity and freedom that people enjoy; 2. the level of consumption possibilities; 3. the distribution of those consumption possibilities; 4. the level of risk that people are required to bear; and 5. the level of complexity that people are

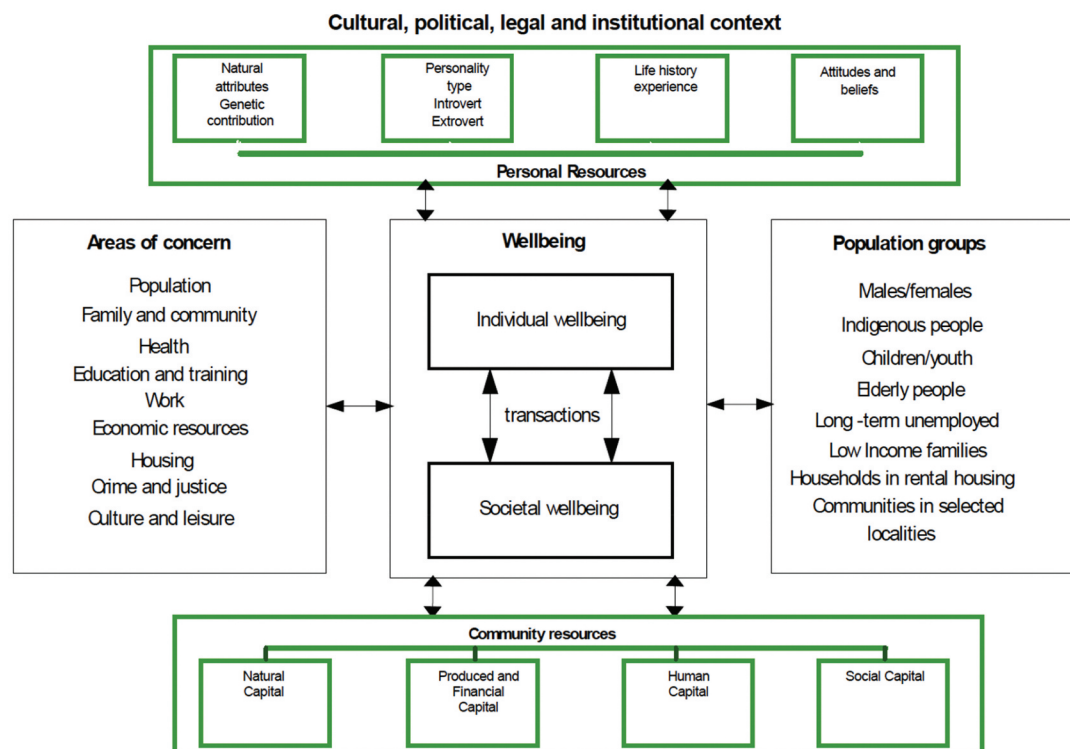


Figure 3. An extended framework for measuring wellbeing. The right panel suggests various groups for whom the ‘areas of concern’ data can be analysed. The top and bottom panels suggest the exchanges between wellbeing and personal and community resources (source: Webster et al., 2008).

The Australian Treasury’s wellbeing framework

Domain	Aspect of wellbeing
Level of opportunity and freedom that people enjoy	Capacity for people to choose the lives they want to live
Level of consumption possibilities	People’s command over resources to obtain goods and services to satisfy their needs and wants
Distribution of those consumption possibilities	Spread of all aspects of consumption possibilities across the population, including across different groups in society, across different geographic regions and across generations
Level of risk that people are required to bear	Intrinsic uncertainty in possible outcomes that is present in almost all decisions. In this broadest conceptual sense, risk impacts on all individuals, and is everywhere in the economy and in society
Level of complexity that people are required to deal with	Proliferation of the number of considerations, and the interconnections between those considerations, for many economic and broader social decisions

Figure 4. The Australian Treasury’s wellbeing framework for focusing on freedom and utility values (Australian Treasury, 2004).

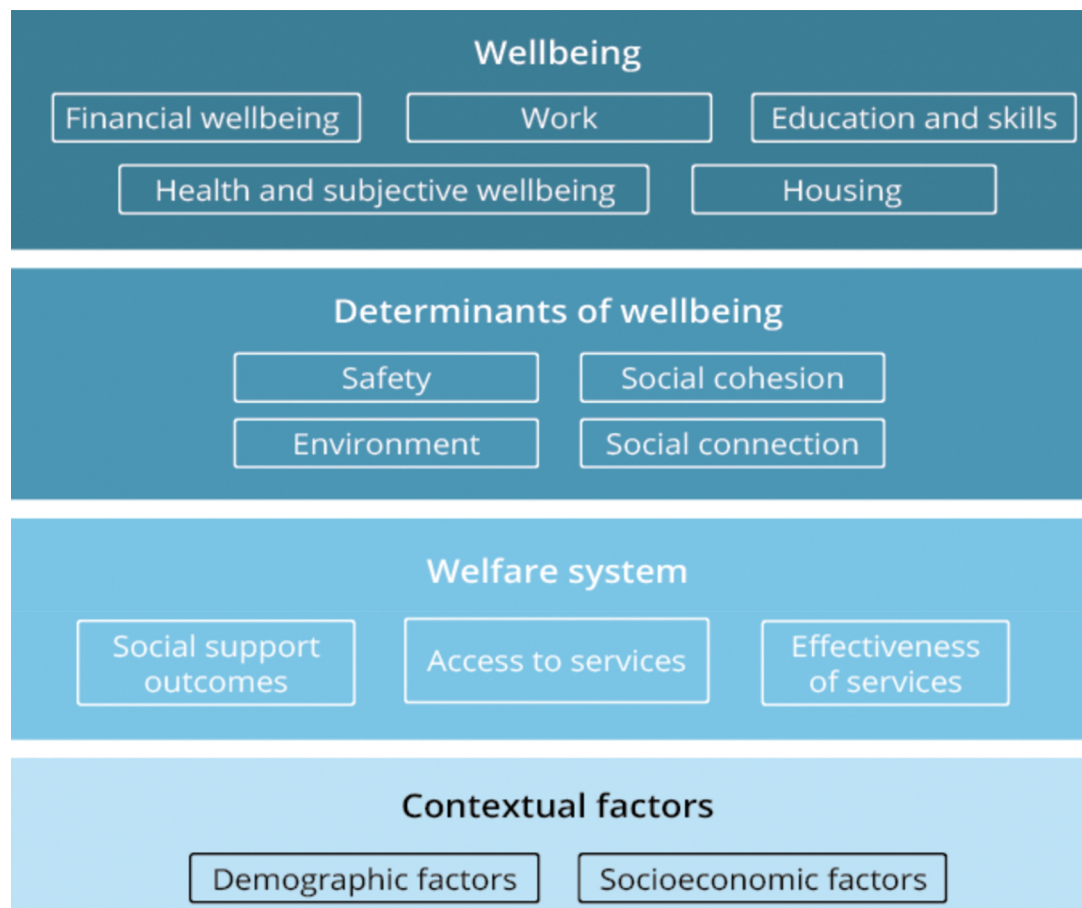
required to deal with. Since the main purpose of the Treasury’s framework is to inform policy and develop programs for addressing key social issues, it partly covers wellbeing just concerning freedom and utility, but not overall wellbeing.

2.3. ABS social wellbeing framework

This conceptual framework is focused on social statistics (social issues, ideas, attitudes and behaviours) for including a set of aspirations for the wellbeing of society (ABS, 2015). Each of the aspirations is linked to a broad social statistics

Table II. Social statistics well-being framework (ABS, 2015; catalogue no. 4160.0.55.001).

Social Statistics Theme	Aspiration
Family and community	Australians aspire to a society that nurtures relationships and where people support each other
Health	Australians aspire to good health for all
Learning and knowledge	Australians aspire to a society that values and enables learning
Work	Australians aspire to satisfying and rewarding work
Economic well-being	Australians aspire to a fair society that enables everyone to meet their material needs
Housing	Australians aspire to have secure places to live that provide a sense of belonging and home, and are adequate to their needs
Crime and justice	Australians aspire to a society where people are safe and feel safe; where justice systems are fair and accessible
Culture and leisure	Australians aspire to value all aspects of life that are important to people and enrich their lives
Governance	Australians aspire to a free society where governance processes are trusted and everyone is able to participate in decision making which affects their lives.
Information and communication technology	Australians aspire to be well-informed and connected.
Built and natural environment	Australians aspire to healthy natural and built environments, which they connect to, benefit from, care for and sustain for future generations.
Population	The characteristics of Australia's population (such as its size and composition) influence, and in turn are influenced by, many aspects of well-being.

**Figure 5.** AIHW welfare indicator framework (AIHW, 2021).

theme: population; family and community; culture and leisure; health; learning and knowledge; work; economic wellbeing; housing; the built and natural environment; information and communication technology; crime, safety and justice; and governance (Table II). However, the indicators for the selected themes are not mentioned in addition to a narrow focus on social aspirations, and consideration of mainstream perspectives (see Table I).

2.4. Welfare indicator framework by the Australian Institute of Health and welfare

The Australian Institute of Health and Welfare (AIHW) has developed its own welfare indicator framework (Figure 5) to measure Australians' wellbeing. This framework comprises four core domains of wellbeing and 14 sub-domains or themes, with 52 indicators. The key domains include Safety, Social cohesion, Environment,

and Social connections, and these domains can be influenced by the socioeconomic and demographic factors at the individual, family and community levels. The focus of this framework and measuring indicators is to assess government requirements for welfare services.

Key components of the AIHW framework include (AIHW, 2021) (Figure 5):

Well-being: The wellbeing domain represents the social conditions and other aspects of people's lives that people consider to be reflective of a "good life".

Determinants of wellbeing: These are the factors that can positively or negatively affect a person's wellbeing, and thus reduce or increase the likelihood they will need welfare assistance.

Welfare services and supports: These include the support and services provided to vulnerable individuals and families of widely differing ages and social and economic circumstances.

Contextual factors: These are the overarching conditions and trends that can influence the allocation of welfare expenditure and workforce capacity. They can help enable or inhibit people's ability to meet their everyday needs.

This framework is relatively extensive but still evolving. The AIHW framework helps summarize the performance of Australia's welfare system, track individual and household determinants of the need for welfare support, and provides insights into the nation's wellbeing status more broadly. So, the indicators are related to each of the components shown in Figure 5, i.e., indicators for wellbeing domains (financial wellbeing, work,

etc.), for the determinants of wellbeing (e.g., safety, social cohesion), welfare systems (e.g., social support outcomes), and for contextual factors (e.g., demographic factors such as population size, growth, ageing, etc.) (for details see: <https://www.aihw.gov.au/reports/australias-welfare/indicators-of-australias-welfare>).

These indicators are largely drawn from existing national agreements and reporting frameworks. The limitations of this framework are mentioned in Table I.

2.5. Measures of Australia's progress (MAP)

To measure the social, economic and environmental dimensions of progress, the ABS introduced "Measures of Australia's Progress" (MAP) in 2002, and included governance as another domain later in the process of development (ABS, 2010b, 2013, Figure 6). MAP serves as a tool to offer a snapshot of economic, social, governance, and environmental progress. The ABS reported data on these three domains for the first time in 2010, and acknowledges that this concept has not yet been fully developed for measuring progress.

The MAP is the first of its kind measure where Australia's progress included environmental attributes. However, all four domains in MAP are reported independently, in isolation of any connections among its four domains. For example, the natural environment, society and economy, although are all interconnected but presented and dealt with independently in this framework. Moreover, the environmental section



Figure 6. Measures of Australia's progress (source: ABS, 2013, catalogue no. 1370.0 - measures of Australia's progress).

Table III. A comparative summary of the selected frameworks.

Frameworks → Key features ↓	ABS (2001) socio-economic framework	The Australian Treasury's wellbeing framework (2004)	ABS social framework (2015)	The Australian Institute of Health and Welfare (AIHW, 2009) framework	Measures of Australia's Progress (ABS, 2013)	Social and well-being framework (Commonwealth of Australia [NATSISS] (2017)	Mayi Kuwayu framework (Lovett et al., 2020)	Interplay wellbeing framework (Cairney et al., 2017)
Socio-economic attributes (e.g., work, education and training, housing, justice, etc.)	Π	X (focus on utility and freedom values)	Π (mainly social attributes)	Limited (mainly focus on safety, social connections and environment)	Π (socio-economic and governance)	X	X	limited (education and employment)
Consideration of people's capabilities, i.e., skills and knowledge (in addition to formal education and training)	X	X	X	X	X	X	X	X
Purpose to inform socio-economic policies and programs	Π	Π	Π	X	Π	X	X	X (limited)
Purpose to inform health related policies and programs	X	X	X	Limited (welfare services)	X	Π Social and emotional wellbeing	Π Health	Π Health, education and employment
Consideration of nature and its services (or <i>Country</i>)	X	X	X (limited mention)	X	Π (environment as one of the key dimensions)	X	X (culture but not <i>Country</i>)	X (culture but not <i>Country</i>)
Applied to Indigenous and non-Indigenous people	Π	Π	Π	Π	Π	Indigenous only	Indigenous only	Indigenous only

simply reports increases or decreases in species number or land cover, without integration with people's wellbeing or economy. For a meaningful measure of progress, all the MAP domains require integration among themselves on how one domain is linked to others (see the main drawbacks of this framework listed in Table I).

A comparative summary of key features of the above-mentioned frameworks is presented in Table III, highlighting their application to Indigenous and/or non-Indigenous people, particular policies and programmes, and consideration of nature-related attributes. Key limitations of all the studied frameworks are a lack of consideration of nature and its services and people's capabilities, i.e., knowledge and skills achieved through life experiences, in addition to formal education and training (discussed in Section 5).

3. Well-being frameworks specifically focused on Indigenous peoples

For Indigenous peoples, wellbeing is holistic and inclusive of societal and individual values, including the health of individuals and community, social network, *Country*, spirituality and culture, and interconnections among various dimensions of life. The ABS (2001) wellbeing framework, as mentioned earlier (Figure 2), is a kind of macro-measure and focuses mainly on socio-economic attributes that are important to the mainstream population, and fails to incorporate Indigenous-specific wellbeing perspectives. To address this, the ABS (2010a) revised the socio-economic framework to include indigenous perspectives i.e., "culture, heritage and leisure" instead of "culture and leisure", and included attributes such as identifying with a clan, tribal or language group, and respect of culture (ABS, 2012–13). However, this represents an abstract approach as Indigenous wellbeing mainly revolves around and is inseparable from *Country* (Holmes & Jampijinpa, 2013; Jarvis et al., 2019; Sangha et al., 2018; Sangha, Brocque, et al., 2015).

Country – clan lands to which people have familial relations with—is an important aspect of wellbeing for many Indigenous peoples (Sangha, Brocque, et al., 2015; Sangha, Le Brocque, et al., 2015). People hold great values for *Country*. A pivotal part of Indigenous culture, community and social networks is *Country* that influences both individual and societal wellbeing (Butler et al., 2019; Milroy, 2006). Indeed, *Country* is the central to the Indigenous world to which all other domains of wellbeing such as cultural, spiritual, physical, economic, and social worlds are attached (Stoeckl et al., 2021; Sangha, Brocque, et al., 2015; Sangha, Le Brocque, et al., 2015; Holmes & Jampijinpa, 2013). We acknowledge that there may be differences in valuing different aspects of

wellbeing for various Indigenous peoples residing in remote and urban locations, however it is widely acknowledged that *Country* and culture are vital for Indigenous people's wellbeing (Butler et al., 2019; Gee et al., 2014; Le Grande et al., 2017; Sangha et al., 2018, 2019).

The importance of people's connections with *Country* and community for Indigenous wellbeing is particularly highlighted by Yap and Yu (2016) by conducting a detailed, micro-level study on the wellbeing of Yawaru people in the Kimberley, WA. According to Yawaru, wellbeing [*mabu liyan* – meaning a good life] is about feeling, being, doing and relating, and described as “*Liyan*”, which includes how people feel with themselves, how they feel regarding their connections to *Country*, and how they feel connected to family and community. Seven domains of *mabu liyan* were identified by the researchers in collaboration with the community members: 1. Strong family; 2. Strong community; 3. Connection to culture, *Country*, and identity; 4. Self-determination; 5. Health; 6. Material wellbeing; 7. Subjective wellbeing. This study and others (Butler et al., 2019; Gee et al., 2014; Grieves, 2007; Milroy, 2006; Salmon et al., 2019; Sangha et al., 2019; Sangha, Brocque, et al., 2015) clearly suggest the need to incorporate indigenous perspectives when measuring people's wellbeing to appropriately inform future planning and development policies.

A comprehensive review by Butler et al. (2019) suggested that two main aspects are critical for Indigenous wellbeing: 1. Interconnections among the different domains of wellbeing; 2. Connections between nature/*Country* and people. The authors highlight key areas important to the wellbeing of Indigenous peoples, including: 1. Autonomy, empowerment, and recognition; 2. Family and community; 3. Culture, spirituality and identity; 4. *Country*; 5. Basic needs (food, money, housing, and access to services); 6. Work, roles and responsibilities; 7. Education; 8. Physical health; 9. Mental health. These domains were similar to those reported by Gee et al. (2014) and Salmon et al. (2019). Most importantly, the need for community, culture, spirituality and identity are prioritized over the needs of individuals and the local complexity is simplified and rationalized for policy purposes. In Australia, to date, we have not come across any such culturally relevant tool to measure this kind of interconnected wellbeing.

To encompass and measure such a holistic and multi-dimensional concept of wellbeing, several organizations have attempted to develop frameworks and measures for Indigenous wellbeing. The ABS designed the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) that was conducted in 2002, 2008, and 2014 and the AIHW and others also funded Indigenous wellbeing research. However, to date,

most of the Indigenous wellbeing research has focused on emotional and health-related issues to consider the role of culture, social networks, and other aspects of Indigenous lives. From a health perspective, understanding health and emotional wellbeing from a broader context including culture and social networks can help improve outcomes but it does not reflect overall wellbeing (Gee et al., 2014).

We review the currently applied wellbeing frameworks (discussed below) in Indigenous context. These frameworks are either applied or led by the Australian Government either alone or in collaboration with scientists and Indigenous organizations. The main focus of these frameworks has been on health and emotional well-being, and a foundational role of *Country* in supporting multi-faceted Indigenous wellbeing including culture is mostly missing. Thus, we suggest the need to revise or refresh these existing frameworks to appropriately inform Indigenous wellbeing policies and develop relevant programs.

3.1. Social and emotional wellbeing measures by the Australian Institute of Health and Welfare

The AIHW (2009) developed the attributes to measure the social and emotional wellbeing of Indigenous peoples, mainly to understand the “whole-of-life” view of health and address the use of mental services. These social and emotional wellbeing attributes, reflecting the overall notion of health, include: psychological distress, the impact of psychological distress, positive wellbeing, anger, life stressors, discrimination, cultural identification and removal from natural family. However, these measures are restrictive and do not extend to a broader notion of well-being as discussed earlier in Section 3.

3.2. National strategic framework for Aboriginal and Torres Strait Islander Peoples' mental health and social and emotional well-being 2017–2023

This framework is an updated version of an earlier National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Well-being 2004–2009 (2004). It aims to inform mental health-related programs and services, especially to address the high incidence of social and emotional, and mental ill-health issues, and to incorporate the role of culture in the social and emotional wellbeing of Indigenous Australians. It embraces the holistic concept of Indigenous health for considering mental health along with physical, cultural and spiritual health, with culture as one of the key elements influencing mental health and wellbeing of Indigenous peoples. The framework is applied nationally and includes seven domains as shown in Figure 7. Key limitations



Figure 7. A model of social and emotional wellbeing with a focus on 'self' with seven overlapping domains: body; mind and emotions; family and kin; community; culture; *Country*; and spirituality and ancestors (source: Commonwealth of Australia, 2017).

of this framework include a narrow focus on self-harm to inform government policies, without appropriately considering the socio-economic and cultural, or family and community aspects (details in Table I).

3.3. Closing the gap indicators (to address inequality between indigenous and non-indigenous people)

In 2008, the Australian Government commenced a long-term program, Closing the Gap, to address inequality between Indigenous and non-Indigenous Australians (Council of Australian Governments COAG, 2009). The aim of the program is to support Indigenous peoples to achieve life outcomes equal to non-Indigenous people. These outcomes are related to the life and wellbeing of Indigenous peoples and include areas such as life expectancy, child mortality, early childhood education, Year 12 or equivalent qualification, tertiary education, employment, housing, legal rights to land, etc., each outcome with at least one or more indicators. The focus of the program is to improve socioeconomic outcomes for Indigenous peoples as per the standards of the mainstream population, and these socioeconomic outcomes are regularly monitored and reported every year against the set targets (Commonwealth of Australia, 2022).

A main limitation of the Closing the Gap program is the assumption that Indigenous peoples aspire to have the same socio-economic outcomes as non-Indigenous people. This may be true for some aspects such as life expectancy but not others such as education, employment, housing, etc. Indigenous peoples' life expectations, especially those residing in remote areas where people live on *Country*, can be quite different from those of non-Indigenous people. For example, people living on *Country* may have more people living in a house, but spend more time outdoors, on *Country*, learning traditional skills and knowledge than in the house itself. Similarly, knowledge of bush food and medicine and cultural ceremonies can be more important than formal education in school—people's preferences may differ.

3.4. Other social and emotional wellbeing frameworks

Several other social and emotional wellbeing frameworks and measures have also been attempted but mainly from a health perspective as there is a growing demand that Indigenous health needs to be understood from a much broader historical, psychological, social, physical and spiritual perspectives. According to Gee et al. (2014), social and emotional

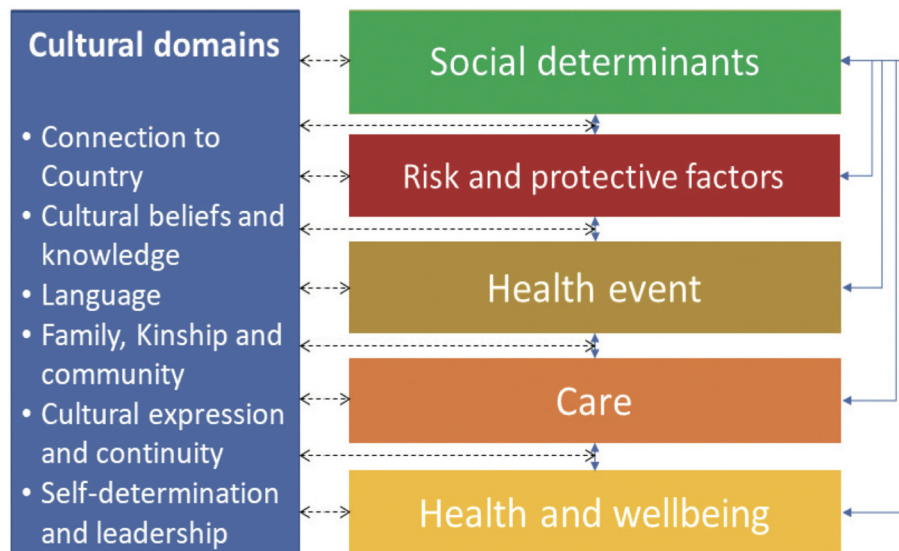


Figure 8. The mayi kwayu framework suggesting how cultural domains interact with health and wellbeing of indigenous peoples (source: Lovett et al., 2020).

wellbeing is defined as a multidimensional concept of health that includes mental health but also other domains of health and wellbeing such as connections to land or *Country*, culture, spirituality, ancestry, family and community. Le Grande et al. (2017) reviewed social and emotional wellbeing assessment tools, and most of these existing tools are ultimately related to health.

The other key studies on Indigenous wellbeing include Mayi Kuwayu—a national study of Aboriginal and Torres Strait Islander wellbeing led by people themselves with support from key Indigenous and government organizations (<https://mkstudy.com.au>). This study explores how culture links with Aboriginal and Torres Strait Islander health and wellbeing by conducting regular detailed surveys (online, in-person and via mail). The Mayi Kuwayu framework shows how cultures and cultural domains, directly and indirectly, interact across health and wellbeing (Lovett et al., 2020) (Figure 8). It is designed to quantify the relations between cultural domains (left side panel in Figure 8) and social determinants, risk and protective factors, health events, care, and health and wellbeing (the right side panel). However, the right side panel in Figure 8 focuses only on health and related aspects and omits the economic domain altogether. Whereas, we argue that wellbeing is much broader than health; health is one aspect among others. A similar framework is proposed by Milroy (2006) explaining how physical, psychological, social, spiritual, and cultural dimensions are linked with people's health and overall wellbeing.

Another key national program, the INTERPLAY, led collaboratively by scientists, governments and Aboriginal people from remote communities, and

hosted by Ninti One Ltd., focuses on how empowerment, culture, community, employment and education all interrelate or “interplay” to impact health and wellbeing (<http://interplayproject.com>)—mainly targeted at “Closing the Gap” policy agenda (Figure 9). The INTERPLAY is an example where a shared place is created for Aboriginal peoples to lead their research on wellbeing, with 838 communities collaborating with scientists to inform wellbeing policies, applying a bottom-up approach. Aboriginal people directly participate in this work by sharing their stories on how and what domains of wellbeing are important to them (Cairney et al., 2017)). This work identifies culture, empowerment and community as key priorities from Indigenous perspectives that influence education, employment and health domains (government priorities) (Cairney et al., 2017). The three domains, education, employment and health are interplayed with factors/priorities i.e., culture, empowerment, and community, while all of the domains and priorities comprise what is called “holistic” wellbeing. So far, this framework is applied at a community scale, and identifies how those priorities influence health, education, and employment, but it does not envision that all those priorities and domains themselves comprising wellbeing, which is embedded in *Country*.

In relation to *Country* a few initiatives such as “Caring for Country”, or recently “Working for Country” and *Indigenous Protected Areas* (IPAs) have existed over the past few years where *Country* is considered pivotal to people's health, community relationships, education/traditional knowledge, etc (Australian Institute of Aboriginal and Torres Strait Islander Studies AIATSIS, 2011). However, these



Figure 9. Interplay wellbeing framework where three domains i.e., education, employment and health are interplayed with factors/priorities i.e., culture, empowerment, and community (source: Cairney et al., 2017).

initiatives do not directly link with measuring people's wellbeing. For the Great Barrier Reef region, a conceptual framework is proposed by Jarvis et al. (2019) on *Sea Country* – “*Strong People Strong Country*” to monitor Indigenous peoples' culture and heritage values while recognizing how the health of *Country* and people, their heritage and knowledge, culture and community, education, empowerment and economics all interact to contribute to “*Strong People Strong Country*”. Nevertheless, the focus of such initiatives is mainly on *Country* and its management, not on how these initiatives contribute to improve people's wellbeing.

Notably, most of the Indigenous wellbeing-related research, except for INTERPLAY, in the past 10–15 years on refining the concept and measures is limited to health and associated social and emotional aspects, not overall wellbeing. Mayi Kuwayu framework is a good example. This kind of targeted wellbeing approach to health has evident advantages for informing health programs and policies but also disadvantages for narrowly focusing on health aspect of wellbeing only while wellbeing from indigenous perspectives is a much broader concept as described by many (Butler et al., 2019; Sangha, Brocque, et al., 2015; Sangha, Le Brocque, et al., 2015; Yap & Yu, 2016; Gee et al., 2014).

Key limitations of Indigenous-focused wellbeing frameworks, listed in Table I with a comparative summary of main frameworks presented in Table III, include a strong focus on health and social and emotional wellbeing but not on economic or financial attributes that are vital as well to enable people to lead their lives. None of the frameworks focus on people's capabilities such as caring for *Country* related knowledge and skills that are achieved through life experiences. Also, the goal of these frameworks is to understand the role of culture in informing targeted health programs, policy agendas, etc. not on the overall wellbeing of Indigenous people. Moreover, a varied range of frameworks exists for specific purposes such as health, prevention of self-harm, Closing the Gap policy agendas, etc., but none on overall integrated social, cultural, economic, and health aspects of Indigenous wellbeing as evident from Table III offering a comparison of various selected frameworks.

4. Analysing key Australian wellbeing frameworks in relation to the OECD ‘better life initiative’ framework

In relation to the recent progress by the OECD, 2020, we analyse the existing key wellbeing frameworks in

Table IV. Summary of key Australian well-being frameworks in relation to the OECD “better life initiative” framework (OECD, 2020).

Organisation for Economic Co-operation and Development (OECD), 2020 “Better life initiative” framework	Social capital		Natural Capital	Economic capital	
	<i>Social and emotional attributes</i>	<i>Cultural attributes</i>	<i>Nature/Country</i>	<i>Economic attributes</i>	<i>Human capital</i>
The main national frameworks					
ABS (2001) socio-economic framework	Some (family and community, crime and justice, etc.)	Little (culture and leisure time)	None	Yes (work, income and related attributes)	Some (formal education and training)
ABS social framework (2015)	Yes (e.g., family and community, learning and knowledge)	Little (culture and leisure time)	Only combined built and natural environment	Yes (economic well-being, housing)	Some (learning and knowledge, information and communication technology)
AIHW (2009) framework	Yes (e.g., safety, social cohesion, subjective well-being)	Little or none	None	Yes (e.g., financial wellbeing, work, government welfare expenditure)	Yes (Education and skills)
MAP (ABS, 2013)	Yes, as in ABS (2001) framework	Little (culture and leisure time)	Environment (e.g., healthy natural environment, protecting the environment)	Yes (e.g., opportunities, jobs, resilient economy)	Not as such (but as part of the Society—Learning and knowledge)
Indigenous well-being frameworks					
Social and well-being framework (Commonwealth of Australia [NATSISS] (2017)	Focus on “self” with connection to community	Focus on “self” with connection to culture	Focus on “self” with connection to <i>country</i>	None	None
Interplay (Cairney et al., 2017)	Community, health and empowerment	Culture as a domain	None	Work	Education
Mayi Kuwayu framework (Lovett et al., 2020)	Yes (social determinant and other attributes that impact health)	Yes, as main domain impacting health	None	None	None

Australia in Table IV, applying key dimensions of social, natural, economic and human capital.

Among the various national frameworks, MAP (ABS, 2013) is the only framework that to some extent covers all the four capitals as listed in the OECD, 2020 framework, however from an applied context the framework is still evolving, its different domains exist in isolation, and currently has little focus on cultural aspects and human capital (Table IV). Likewise, none of the Indigenous frameworks covers all of those four capitals, suggesting the need to consolidate and co-develop a holistic wellbeing framework with Indigenous peoples in line with their contemporary value systems to appropriately inform future policies and programs.

5. Discussion and conclusions

We offer a comprehensive analysis of key wellbeing frameworks applied or led by the Australian Government to measure people’s wellbeing. From both Indigenous and non-Indigenous perspectives, a common key attribute—the role of nature or

Country towards people’s wellbeing—is missing or poorly incorporated in the existing frameworks, suggesting that an overarching framework appropriately incorporating social, economic and environmental attributes is lacking to date in Australia. A limitation of this study is the analysis of only selected frameworks that are either applied or led by the Australian Government.

For Indigenous people, there is wider recognition of their culture and related values as an important attribute/factor influencing health and emotional wellbeing (Cairney et al., 2017; Commonwealth of Australia, 2017; Gee et al., 2014; Jarvis et al., 2019; Le Grande et al., 2017; Lovett et al., 2020). However, the basis of those cultural values is *Country*, which is least considered in any of the existing frameworks. Moreover, the focus in Indigenous-specific frameworks has been on informing health or targeted policy agendas only, not on Indigenous wellbeing itself which is broader than just health (Le Grande et al., 2017; Sangha, Brocque, et al., 2015; Sangha, Le Brocque, et al., 2015). Likewise, for non-Indigenous people, nature and man-made agroecosystems play

a key role in people's wellbeing (Costanza et al., 2007) but the incorporation of values of such systems is lacking in the existing frameworks. Whereas, recent advances, especially by the OECD under the "Better Life Initiative", are planning to incorporate nature-related attributes under the "natural capital" (OECD 2020, Figure 1). Australia has yet to embrace the OECD concept. With the Australian Government's announcement for a statement "Measuring what matters" released in July 2023 (Australian Government, 2022), it is expected that the current measures will be revised in line with the contemporary approaches and worldviews on wellbeing, and from this perspective, this review is timely and valuable.

Nature's role towards human wellbeing, with much greater awareness in recent years, is increasingly becoming recognized, especially after the UN-led initiatives such as the Millennium Ecosystem Assessment (MA, 2005) followed by the Intergovernmental Platform on Biodiversity and Ecosystem Services (Intergovernmental Platform on Biodiversity and Ecosystem Services IPBES, 2023). The MA framework (2005) considers human wellbeing from five dimensions: 1. Basic materials for life; 2. Health (good air, water, and food); 3. Security; 4. Social relations; and 5. Freedom of choice and action and how each of these dimensions interacts with nature/nature's services. Similarly, the IPBES (2016, 2019) framework focuses on how nature and its services contribute towards a good quality of life including access to food, water, energy and livelihood security, health, good social relationships and equity, security, cultural identity, and freedom of choice and action. The MA and IPBES initiatives have been instrumental in influencing various states and their policies across the globe to incorporate nature-related concerns. Many studies also demonstrate that human—the rest of nature connections enhance human wellbeing (Costanza et al. 1997, Costanza et al., 2007, 2018; Sangha et al., 2022). A small country, the kingdom of Bhutan, with 754,000 people living across 38,000 km² of land, sets an example to the rest of the world demonstrating that people's wellbeing and nature are more important to Bhutan's economy, applying the Gross National Happiness index (with dimensions such as Ecological Diversity and Resilience; Centre for Bhutan Studies & GNH Research, 2016) than the Gross Domestic Product—a typical focus for many countries including Australia.

Transformation to incorporate nature as part of human wellbeing is required and currently proceeding at various regional, national and local scales. The OECD framework (2020) is a leading example where natural, human, economic, and social capital are considered key dimensions under resources for future wellbeing. In Australia, only MAP (2013) has included the environment domain but as a stand-alone, without integration with the economy or societal domains. Several Indigenous social and emotional wellbeing frameworks have also considered the importance of culture for people's wellbeing but

a majority with a focus on health. Moreover, Indigenous culture and cultural values extend to *Country*—consideration of which in the current wellbeing frameworks and approaches is missing. We posit that *Country* and access and rights to clan land, freedom, and ability to carry on cultural activities are equally vital for Indigenous wellbeing.

Human capabilities i.e., people's knowledge and skills, experiences, personal attributes, etc. that enable people to effectively lead their lives, is another important aspect of wellbeing (proposed by Sen, 1993) that befits Indigenous perspectives. Typically, formal education and training are considered to date, but not Indigenous capabilities such as skills and knowledge to care for *Country*. Sen (1993, 1999), Nobel Laureate in Economics, proposed a multi-dimensional concept of wellbeing focusing on people's values towards life, suggesting wellbeing should be understood in terms of people's capabilities and abilities to achieve outcomes. Indigenous capabilities such as knowledge of *Country*, ability to work on-*Country*, freedom to access *Country* and perform cultural ceremonies, and lead lives as one wants to, constitute vital elements of Indigenous wellbeing (Sangha et al., 2019; Sangha, Le Brocque, et al., 2015). These capabilities enable people to achieve their potential and are essential to be appropriately considered when planning Indigenous-specific wellbeing approaches or frameworks. *Country* and related attributes, especially Indigenous capabilities and related opportunities to utilize or build capabilities, and culture and related values, form the foundation for social, economic and emotional wellbeing that could lead to empowerment, self-determination, freedom and autonomy for many Indigenous peoples in Australia. Several case studies (Burgess et al., 2009; Jones et al., 2018; Sangha et al., 2018, 2019; Sangha, Le Brocque, et al., 2015) reveal such connections between *Country* and various aspects of Indigenous wellbeing. We envision *Country* as a foundation for people's socio-economics, culture, education/capabilities, freedom and choice of action, community safety and security, and health—comprising the main domains, with empowerment, autonomy, and self-determination as outcomes. Co-developing such a consolidated, holistic, whole of systems, framework of wellbeing, involving Indigenous peoples, economists, environmentalists, social scientists and health specialists, can help guide governments to develop policies and programs that focus on creating opportunities suiting Indigenous capabilities and enhancing people's overall wellbeing including social, economic, cultural, health, and *Country*-related values.

From a policy perspective, conceptions of wellbeing inform the development of indicators and measures to evaluate wellbeing in an interactive and iterative process, which further influences government funding and related programs. Wellbeing measures, therefore, need to be contemporary, robust, quantitative as well as qualitative where applicable, to offer a concrete and

clear picture of people's wellbeing. We acknowledge that different Indigenous clan groups or people from various cultural backgrounds may have different weightings for various dimensions of wellbeing, yet an overarching framework with an appropriate set of indicators and measures befitting people's contemporary values is essential to appropriately inform future welfare policies and programs in Australia.

In conclusion, significant advances have been made in understanding the concept of wellbeing as a "whole of systems", however the Australian wellbeing frameworks still largely focus on socio-economic or social and emotional attributes, depending upon the policy requirements, while omitting the role of nature and its services. An overarching wellbeing framework inclusive of key social, economic and environmental attributes is yet to be developed (MAP is the only exception but without integration among its economic, social and environmental domains it fails to serve the purpose). A holistic Australian wellbeing framework incorporating nature's role is certainly required.

From Indigenous perspectives, novel health and emotional wellbeing frameworks have emerged over recent years but these are limited only to health or specific government policy agendas and overlook the economic circumstances in which the majority of Indigenous peoples live and operate.

Another issue is that there are too many wellbeing frameworks that are currently applied by the Australian Government for various purposes, but none consolidates information from a holistic wellbeing perspective. An overarching wellbeing framework linking the social, economic, health, and cultural worlds with *Country* (for Indigenous peoples) or the environment (for non-Indigenous people), applying a set of robust indicators and measures, will be ideal to appropriately inform socio-economic, health, and natural resource management, and the related public policies and programs.

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