

Antarctic Cities

Volume 2 Urban Sustainability Profiles

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Antarctic Cities, Volume 1: From Gateway Cities to Custodial Cities

Antarctic Cities, Volume 2: Urban Sustainability Profiles

Antarctic Cities, Volume 3: Antarctic Connectivity Index

Antarctic Cities, Volume 4: Principles for Antarctic Connection



**SUBMARINE
CABLE**

INDICATORS SHOW ALIGNMENT
BOARD SHOWS CLEARANCE

Hobart, old docks with submarine cables.

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Cape Town, city centre with sculpture of the globe.

iPhondo
iNkomo

iPhondo
iNkomo

1. Mapping Urban Sustainability

The sustainability profiles of the participating cities were developed by the Antarctic Cities project based on the premise that the cities needed to map and understand their own sustainability in order to understand their capabilities for custodianship. They needed to understand their own strengths and weaknesses — ecologically, economically, politically and culturally — in order to reach out to Antarctica without a false sense of what was possible *and* without romanticizing what custodianship entails. Put in more general terms, care beyond one's borders is strengthened by a culture, politics and economy of local care. The profiles are one means of providing an evidence-based understanding of where that care is best directed.

Background to the Urban Sustainability Profiles

In order to map the sustainability of the Antarctic cities in a way that allowed qualitative comparison across these urban regions — municipalities that collect data in relatively incommensurable ways and along quite different variables — we needed a method that could variably integrate data and statistics into a qualitative assessment framework. Hence, we chose the *Circles of Sustainability* approach.¹ The Circles approach offers such an integrated method for practically responding to complex issues of sustainability, resilience, adaptation, and liveability. It is used to guide the cities through the difficult process of responding to complex or seemingly intractable problems and challenges associated with building long-term sustainability. The approach builds upon the strengths of a research program developed in association with Metropolis, the UN Global Compact Cities Programme, World Vision and a number of other key international organizations. It was developed through practical engagement in cities around the world including Berlin, Melbourne, Milwaukee, New Delhi, Porto Alegre, San Francisco, and Valletta, to name a few.²

The Circles of Sustainability profile process is intended as a way of developing an interpretative description of the sustainability of an urban region and its immediate hinterland. Here sustainability is understood in relation to local, national, and global processes: ecological, economic, political and cultural. The Circles of Sustainability process is considered part of the more general Circles of Social Life assessment process, which includes considerations of vitality, productivity, relationality and sustainability (including resilience and adaptation)³ This meant that the other elements of the work — the Connectivity Index and the Principles of Antarctic Engagement — could be developed using the same matrix of variables.

The sustainability profile template is intended as way of developing a more comprehensive understanding of an 'urban region'—in this case, Hobart. By responding to the questions in the Urban Profile Question it is possible to generate a clear and simple graphic representation of the sustainability profile of that region. Examples are shown in Figure 1 (next page) for representative cities around the world.

The Issues in Contention

The Urban Profile process works on the basis of a four-domain model. Each domain is divided into seven perspectives (as set out in Table 1 below), and seven questions are asked about each perspective (see the questionnaire that follows in this document).

1 Part of the larger *Circles of Social Life* approach. See James, et al., 2015.

2 See www.circlesofsustainability.org

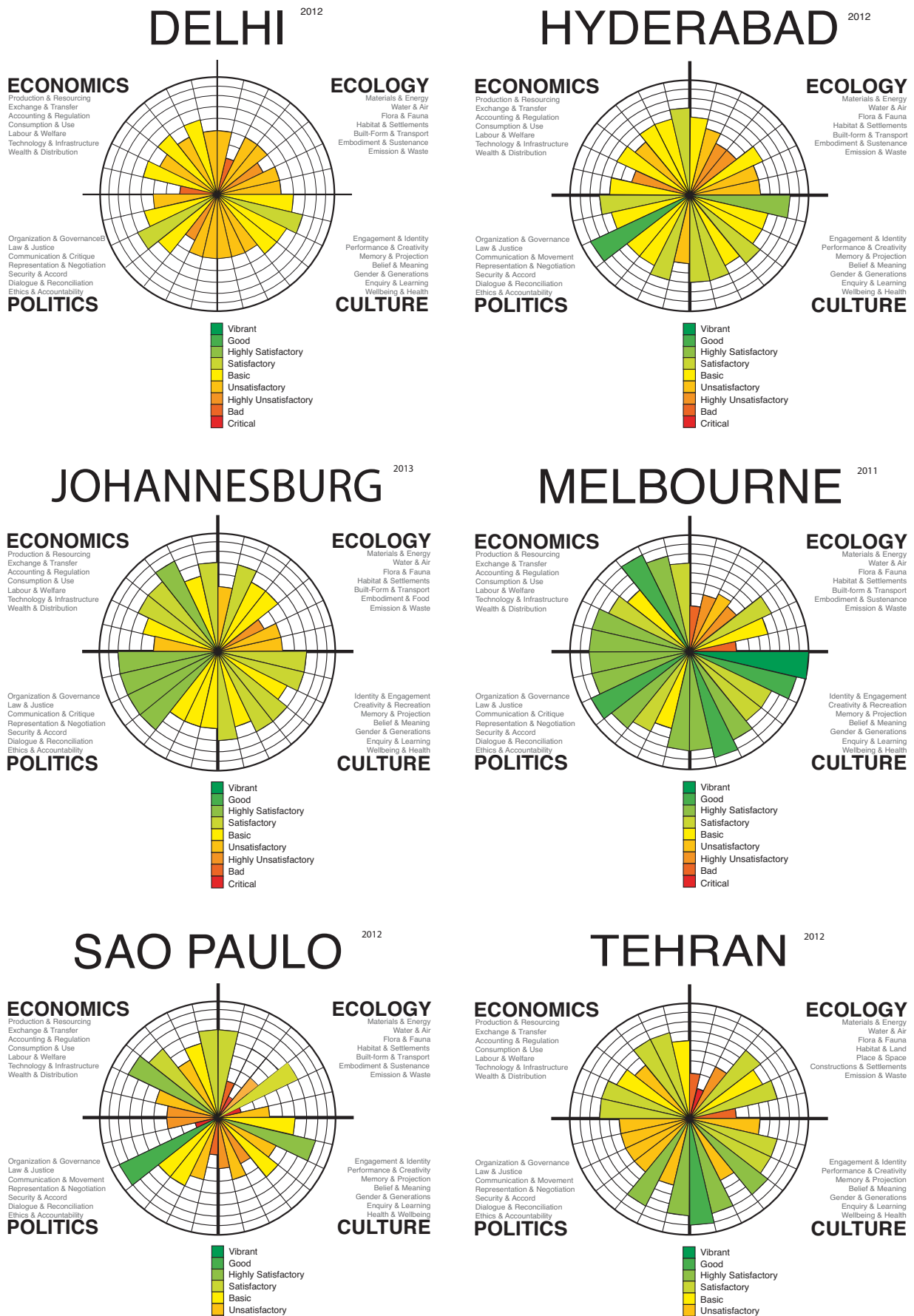
3 The profiles in this report are based on the Circles of Sustainability approach (Version 4.3), part of the more comprehensive Circles of Social Life approach. There were numerous consultants involved in setting up this method. The Cities Programme Working Group which originated the matrix comprised Paul James, Liam Magee, Martin Mulligan, Andy Scerri, John Smithies, and Manfred Steger, with others. The Metropolis Framework Taskforce which developed the tool comprised Paul James (Melbourne), Barbara Berninger and Michael Abraham (Berlin); Tim Campbell (San Francisco), Emile Daho (Abidjan), Sunil Dubey (Sydney), Jan Erasmus (Johannesburg), Jane McCrae (Vancouver), and Om Prakesh Mathur and Usha Raghupathi (New Delhi). In Australia, Peter Christoff, Robin Eckersley, Mary Lewin, Howard Nielsen, Christine Oakley, and Stephanie Trigg supported the process. In Brazil, important responses came from Eduardo Manoel Araujo (UN Cities Programme Advisor), Luiz Berlim, Marcia Maina, Luciano Planco and Paulo Cesar Rink. In the United States, suggestions for reworking came from Jyoti Hosagrahar (New York) and Giovanni Circella (Davis, California). The Hobart team included Juan Salazar (convenor), Paul James, Elizabeth Leane, Liam Magee, Hanne Nielsen and Tim Short, with Chloe Dear (Christchurch) and Daniela Liggett (Christchurch) and members of the Critical Reference Group. Further research was conducted by Sebastian Martin Valdez and Paul James.

Table 1. Summary of the Structure of the Urban Profile Process

Domains	Subdomains	Possible issues to consider
Ecology	<ul style="list-style-type: none"> • Materials and Energy • Water and Air • Flora and Fauna • Habitat and Settlements • Built-form and Transport • Embodiment and Sustenance • Emission and Waste 	<ul style="list-style-type: none"> • Sources of energy including petroleum, etc. • Air quality, climate change adaptation, etc. • Parks and gardens, tree coverage, etc. • Habitat destruction, land-use, etc. • Urban spatial development, housing, etc. • Physical human health, nutrition, etc. • Pollution, recycling and waste disposal, etc.
Economics	<ul style="list-style-type: none"> • Production and Resourcing • Exchange and Transfer • Accounting and Regulation • Consumption and Use • Labour and Welfare • Technology and Infrastructure • Wealth and Distribution 	<ul style="list-style-type: none"> • Industry and commerce, resources, etc. • Money, trade in goods and services, etc. • Regulatory systems, etc. • Consumption patterns, use of goods, etc. • Labour markets, economic provision, etc. • High-tech to low-level technologies, etc. • Poverty, unemployment, inequality, etc.
Politics	<ul style="list-style-type: none"> • Organization and Governance • Law and Justice • Communication and Critique • Representation and Negotiation • Security and Accord • Dialogue and Reconciliation • Ethics and Accountability 	<ul style="list-style-type: none"> • Legitimacy, system of governance, etc. • Legal system, political justice, etc. • The press, media, news, dissent; protest, etc. • Participation by citizens, voting civility, etc. • Political tensions, military presence, etc. • Customary rights, truth commissions, etc. • Corruption issues, public ethics, etc.
Culture	<ul style="list-style-type: none"> • Identity and Engagement • Creativity and Recreation • Memory and Projection • Belief and Meaning • Gender and Generations • Enquiry and Learning • Wellbeing and Health 	<ul style="list-style-type: none"> • Ethnicities, cultural identities, images, etc. • Celebrations, events and rituals, sport, etc. • Indigenous history; museums; etc. • Religions and spiritualities; ideologies, etc. • Gender relations; family; generations, etc. • Education and training systems, etc. • Emotional and mental health, wellbeing, etc.

Rather than just picking up on issues that happen to be relevant now, this systematic structure is intended to cover all issues relevant to the human condition.

Figure 1. Circles of Sustainability Assessments in Different Cities



Each of these figures represents a qualitative self-assessment by local and other experts of the sustainability of the respective urban areas. The assessment group should define the precise nature of the urban area in question before the assessment begins (see Table 1 above). For example, in Figure 2 above 'Sao Paulo' refers to the greater Sao Paulo Metropolitan region. Similarly, 'Melbourne' in this case is assessed across the metropolitan region of Melbourne rather than the Municipality of Melbourne, which is much smaller geographically and demographically.

Definitions for the Purposes of this Questionnaire

- 'Sustainability' is defined as activity that 'meets the needs of the present without compromising the ability of future generations to meet their own needs'.⁴ This is the minimal definition of what in the questionnaire calls a level of 'satisfactory sustainability'.
- 'Positive sustainability' is defined as practices and meanings of human engagement that make for an ongoing life-world that projects natural and social flourishing, vibrancy, resilience, and adaptation.
- 'Urban area' or 'area', as used in the questionnaire means the area that you have defined as the basis for making this assessment. The concept of 'local' is used to mean the space within the urban area.
- 'Urban region' means the urban area and its immediate hinterlands, including its peri-urban extensions, adjacent agricultural and rural land, and its water catchment areas if they are in the immediate vicinity of the urban area.
- 'Broader region' is taken to mean within two-three hour's land transport from the urban region.
- Concepts such as 'good' and 'appropriate' are to be defined in terms of the values of the sustainability assessment respondents, but in an Annotated Assessment these are the sorts of issues that would need to be defined by the Assessment Panel.

The Scale for Critical Judgement

The questionnaire asks for critical judgement on a nine-point scale of sustainability from critical sustainability to vibrant sustainability (see Figure 2 below). The period in question is the present (unless otherwise specified), and the limits of projection are the next 30 years or one generation, using the United Nations' definition of 'sustainable development' as development that meets the needs of the people now, without compromising the needs of the next generation.

Critical sustainability, at the least-sustainable end of the sustainability spectrum, means a level of sustainability that requires critical or urgent change now in order to be assured of continuing basic viability over the next thirty years and thus into the adult lives of the next generation.

Vibrant sustainability, at the other end of the spectrum, means a level of sustainability that is currently active in reproducing vibrant social and environmental conditions that augur well for long-term positive flourishing for the next generation and beyond.

Basic sustainability, the mid-point on the scale, signifies a level of sustainability that allows, all other pressures being equal, for a basic equilibrium over the coming period meeting the 'needs' of the next generation. See Figure 2 below.

Figure 2. The Scale of Sustainability

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

This is a qualitative survey, but it can be linked to any comprehensive indicator set that measures sustainability, wellbeing, resilience, prosperity and adaptability. Figure 3 on the next page offers an example of what is possible, with the different subdomains of the Circle of Sustainability to UN-Habitat's City Prosperity Index linked to the targets of the Sustainable Development Goals (the 14 goals are in black; targets are in blue).

⁴ World Commission on Environment and Development, *Our Common Future*, Oxford University Press, Oxford, 1997, p. 8.

Figure 3. The Sustainable Development Goals and Targets Mapped using the Circles of Social Life Approach

Mapping the Sustainable Development Goals Using the *Circles of Social Life* Framework

60 targets

Goal 12. Ensure sustainable consumption and production

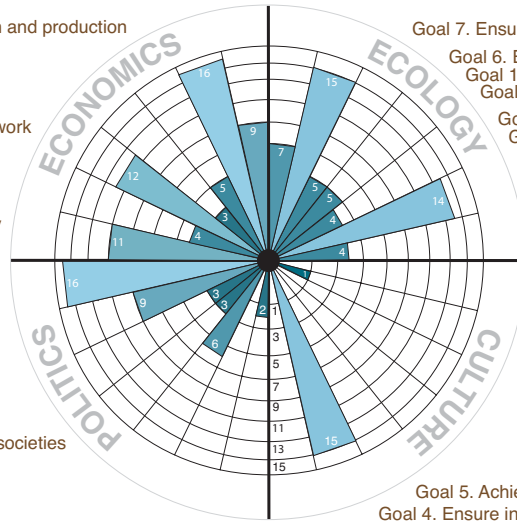
Goal 8. Promote full and productive work

Goal 1. End poverty
Goal 10. Reduce inequality

39 targets

Goal 17. Strengthen the means of implementation

Goal 16. Promote peaceful, just societies



54 targets

Goal 7. Ensure access to sustainable energy for all

Goal 6. Ensure sustainable water and sanitation for all
Goal 14. Conserve and sustainably use marine resources
Goal 13. Combat climate change and its impacts

Goal 15. Sustainably use terrestrial ecosystems
Goal 11. Make settlements inclusive and sustainable

Goal 2. End hunger, achieve food security
Goal 3. Ensure healthy lives

16 targets

Culture Gap

DOMAINS OF THE SOCIAL

ECONOMICS

Production & Resourcing
Exchange & Transfer
Accounting & Regulation
Consumption & Use
Labour & Welfare
Technology & Infrastructure
Wealth & Distribution

POLITICS

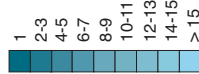
Organization & Governance
Law & Justice
Communication & Critique
Representation & Negotiation
Security & Accord
Dialogue & Reconciliation
Ethics & Accountability

ECOLOGY

Materials & Energy
Water & Air
Flora & Fauna
Habitat & Settlements
Built-form & Mobility
Embodiment & Sustainance
Emission & Waste

CULTURE

Identity & Engagement
Creativity & Recreation
Memory & Projection
Belief & Meaning
Gender & Generations
Enquiry & Learning
Wellbeing & Health





Mawson's Huts REPLICA MUSEUM

ERY

Hobart, Mawson's Hut replica

Hobart's Sustainability Profile

Hobart is the capital city of the island state of Tasmania, Australia. It has a population of 226,000, and is a low-density, low-rise city built along the River Derwent, sheltered to the west by Kunanyi/Mount Wellington. Hobart is Australia's second oldest city, founded in 1803 as a British penal colony on the land of the Muwinina people, who called this area Nipaluna.⁵ The customary owners were killed and dispossessed of this land in what has been called the Black War. The penal colony settled first at Risdon Cove, and was moved across the river to what is now central Hobart in 1804. The city was named after Robert Hobart, then British Secretary of State for war and the colonies. The convict history of the city is still evident in its Georgian sandstone architecture, and historical sites such as the World Heritage-listed Cascades Female Factory.

Greater Hobart is linear and follows the course of the River Derwent. Hobart has a significant peri-urban area that includes large areas of eucalypt woodland and forest, contributing to a high risk of bushfire in the summer months. The River Derwent expands out into Storm Bay, giving Hobart a deep-water port that is used by commercial shipping, cruise ships and Antarctic research vessels. Hobart is known as an 'Antarctic gateway city' due to its proximity to the Southern Ocean, and the high concentration of Antarctic researchers living and working in the city. Hobart operates as a regional service-centre, with a high proportion of employment associated with health care and social assistance, public administration and safety, and education and training. The entire state of Tasmania is considered to be regional by the Australian Government's Department of Home Affairs.

The Greater Hobart area consists of five local government areas: City of Hobart, Glenorchy, Kingborough, Clarence, and Brighton. There is significant movement between these areas, with many commuters living in one municipality but working in another. Transport corridors to the north and south of Hobart City centre and across the Derwent Bridge can become congested during peak times, due to lack of alternative routes. 76 per cent of people drive to work in Hobart (Australian Bureau of Statistics (ABS) 2016 Census), although once in the city, walking is a popular transport option. While Tasmania's hydropower supply means that the city has a relatively low carbon footprint, its urban geography and lack of public transport infrastructure contribute to a high dependence on cars. Other key challenges in the Greater Hobart area include a housing shortage, high rates of illiteracy, and the task of effective protection of biodiversity.

Hobart is home to a thriving arts and cultural scene. Annual festivals include the Festival of Voices (annually, winter); Dark MOFO Winter Festival (annually, mid-winter); Ten Days on the Island (biennially in autumn) and the Taste of Tasmania (annually, summer). Key cultural institutions include The Tasmanian Museum and Art Gallery (TMAG) and the Museum of Old and New Art (MONA). The Salamanca Market (Saturdays) and Farm Gate Market (Sundays) are both tourist attractions and examples of local culture and business. Hobart is improving economically from an historically low base, aided in part by a growing tourism market.

Hobart as an Antarctic Gateway City

The relationship of people living in what is now known as Hobart with the vast region of the far south stretches back many millennia before European occupation. The Palawa people knew the far south through its wind, current and weather patterns, as well as spectacular auroral displays (the new Australian icebreaker is named Nuyina, the palawa kani term for the southern lights). After European settlement, this relationship evolved through a series of overlapping phases: first a commercial one, in which sealing and whaling ships used the city as a convenient port for forays into the Southern Ocean; then exploratory, as various national Antarctic expeditions resupplied and/or overwintered in the city, a period now celebrated in waterfront heritage buildings and objects; and later logistical, as various nations established bases in East Antarctica to which Hobart provided ready access.

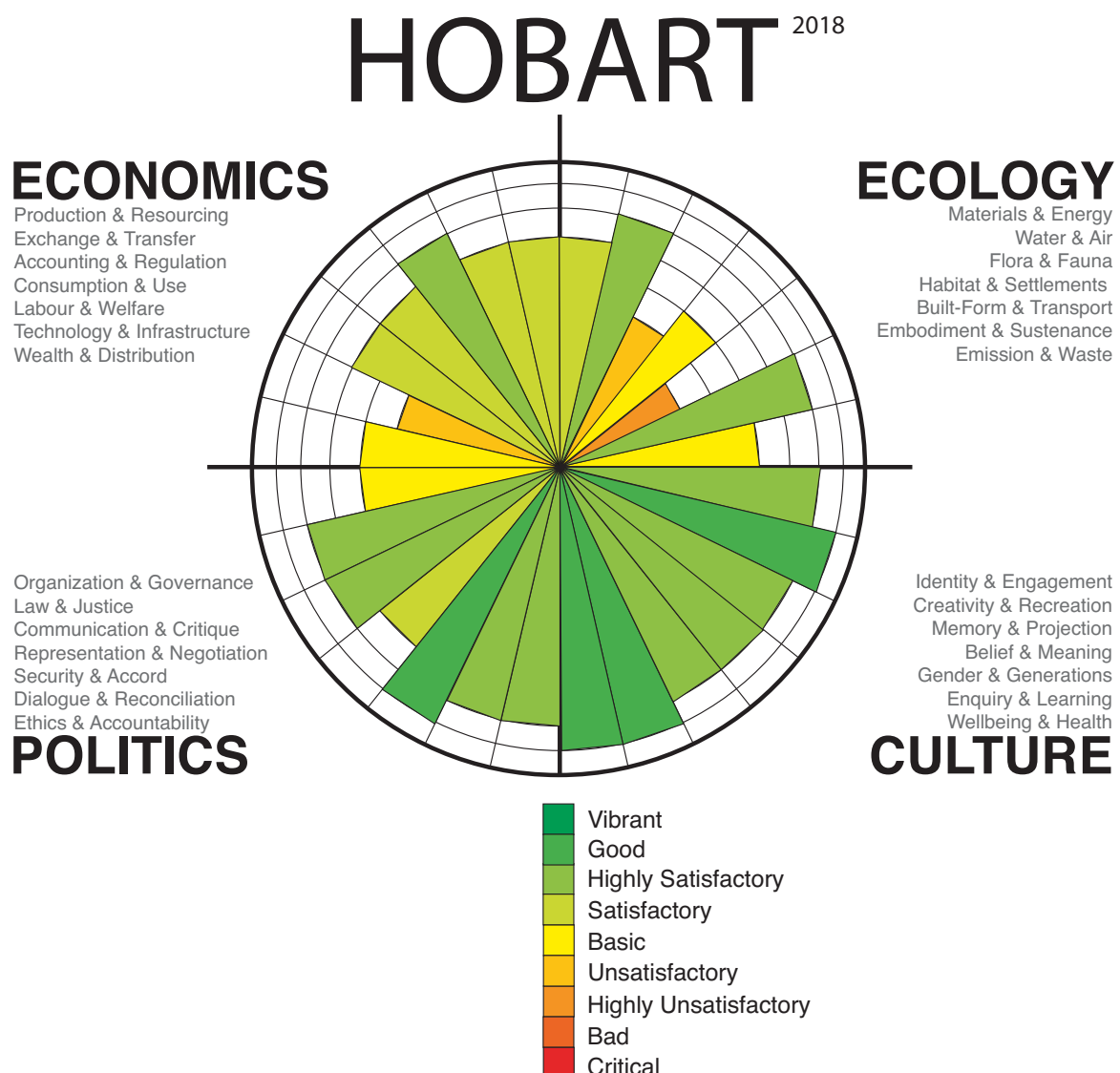
Antarctic science programs from France, Italy, China, the Republic of Korea, Russia and Japan have all used Hobart's port as a logistical base, and France and China have both signed MOUs with the Tasmania government on 'gateway cooperation' (State of Tasmania, 2017: 8). The Australian Antarctic Division (AAD) is also located within the Greater Hobart area and uses the city's port to access the ice continent. The Antarctic sector provides significant employment and economic benefits to the city (as of 2017, over 750 people employed directly, and around 430 indirectly (State of Tasmania, 2017: 3). The Tasmanian Polar Network, a co-ordinated group of business, scientific, educational and government representatives, was established in 1999 to foster commercial and scientific activity in relation to the Antarctic sector. Hobart's southern connections are also political (the city hosts two secretariats who support and administer legal instruments within the Antarctic Treaty System); cultural (Hobart holds a biennial Antarctic festival, as well as permanent museum exhibits and archival holdings); and research-based (with numerous Antarctic researchers located in the Institute of Marine and Antarctic Studies and other parts of the University of Tasmania, as well as the Commonwealth Scientific and Industrial Research Organization (CSIRO) and the AAD).

⁵ The Muwinina people from Nipaluna, the Hobart region, are part of the Palawa people, from Tasmania.

Hobart's facilitation of access to Antarctica for other national programs has until recently been largely politically uncontroversial. France, which claims a slim sector of Antarctica that divides Australia's large territorial claim (comprising 42 per cent of the continent), has used Hobart as a base since 1948. In 2019, the Tasmanian Government signed a five-year MOU with the French Polar Research Institute to continue this relationship, an event reported positively in the media (Killick, 2019). However, the Antarctic activities of China — a non-claimant state — have recently drawn negative attention to the city's polar gateway function.

Hobart is the stage for international discussions about the management of the Southern Ocean thanks to the annual meeting of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) which is held in the city each October. CCAMLR meetings have also become a focal point for political attention from environmental activist groups. From 2012, a series of proposals for Marine Protected Areas in the ocean surrounding Antarctica received considerable opposition from several nations, most prominently China and Russia. During this period, CCAMLR meetings drew increasing media interest, while street banners and protests by environmental NGOs — including some in which protestors dressed in penguin suits — brought attention to the issue of protection (see for example Dawtrey, 2013; Mounster, 2014). While the degree to which Hobart residents have taken part in these protests is unclear, with the CCAMLR headquarters located on one of the city's main thoroughfares they have certainly been visible both to passers-by and through media reports.

Figure 4. Sustainability Profile of Hobart



CIRCLES OF SUSTAINABILITY

Table 2. The Urban Region Being Assessed

The name of urban area in question: (That is, the name of the city, town, or municipality, etc., that is being assessed.)	Hobart (NB. the metropolitan region, not just the LGA)
Geographical spread of the urban area in km ² .	1,695 square kilometres
Population of the urban area.	226,000, Greater Hobart ⁶ (NB. Hobart LGA has 50,700)
Period of the assessment:	2018

The Level of the Assessment

The Hobart Assessment Panel met initially in a half-day workshop in July 2017 to conduct the Hobart assessment. It was done initially as a Rapid Assessment (see Table 2 below) by 17 experts in Hobart, part of the larger Critical Reference Group, each with expertise across the four domains of ecology, economics, politics and culture. We divided participants into these four groups, with facilitators and scribes in each group, and asked each group to respond to the main question in each of the subdomains with reference to the third-level aspects, roughly annotating the assessment as we went along. The core team from Western Sydney University and the University of Tasmania then went through the assessment refining and developing both the annotations and assessment details. This draft was then circulated to the whole Critical Reference Group for further discussion and refinement, building towards an Annotated Assessment Profile in 2018.

Table 3. The Level of the Assessment Process for Hobart

<p>Each of the first four levels can be done as a registered assessment. This involves registering the assessment with either the Cities Programme or Metropolis, including a description of the process that your team went through to complete the assessment. Registration verifies that the process was conducted thoroughly and well.</p> <p>The profile mapping process can be done at six levels:</p> <p>1. Rapid Assessment Profile By responding to the single 'general question' under each 'perspective' by marking the 9-point scale.</p> <p>2. Aggregate Assessment Profile By responding to the 'particular questions' under each 'perspective' by marking the 9-point scale).</p> <p>3. Annotated Assessment Profile By completing the exercise at Level 2 and writing detailed annotations about how the points on the scale were derived.</p> <p>4. Comprehensive Assessment Profile, I By completing the exercise at Level 3 and writing a major report on the urban area using the questions to guide the writing.</p> <p>5. Comprehensive Assessment Profile, II By completing the exercise at Level 3 and assigning metrics-based indicators to each point on the scale.</p> <p>6. A Certified Assessment By completing an Assessment Profile at one of the previous levels, and then negotiating with the Circles Project team to have their Global Advisors critical respond and certify that assessment.</p>	<p>The ticks below indicate the profile exercise that has been completed.</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p>
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6 2016 ABS figures.



PRINCES WHARF
NO. 1 SHED



HAZCHEM

Hobart, Princess Wharf No. 1 Shed.

Urban Profile Questionnaire for Hobart

Ecology

1. Materials and Energy

General Question: How sustainable is energy production for the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 6

Particular Questions

How sustainable are the following aspects of the urban area?

1. The availability of material resources in the broader region. ⁷	6
2. The availability of food grown in the immediate urban region. ⁸	6
3. The availability of minerals and metals sourced from the broader region.	6
4. The proportion of electricity produced for the urban area by renewable means.	8
5. The dependence of the urban area on fossil fuels.	5
6. The use of recycled materials.	4
7. The translation of resource-use monitoring into resource-reduction strategies.	5

Annotations explaining the scores:

Food grown in region: Production of fresh fruit and vegetables in Tasmania occurs mostly on small holdings in the North and North-West of Tasmania as part of mixed farming enterprises. Local food is grown in the Huon and Derwent Valleys, Clarence and Sorrell: tomatoes, apples, strawberries, pears, lettuce, stone fruits including cherries and peaches, and olives. (Tasmanian Local Food Supply Project). Only 1.5 per cent by weight of the state's crops are grown in the immediate hinterlands around Hobart, including the five LGAs of Brighton, Clarence City, Glenorchy, Hobart, and Sorell.

Energy-use: Overall, Tasmania only uses a small proportion of Australia's total energy use (1.8 per cent in 2014–2015 (Australian Energy Update, 2016, p. 13).

Energy-production: The energy profile of Tasmania and therefore Hobart in relation to electricity production is very different from the rest of Australia with a strong renewable base in hydroelectricity. In 2016 Tasmania returned to 100 per cent electricity as significant rainfall replenished dam levels. In 2015, the extended outage of the Basslink interconnector, low dam levels, and bush fires had forced the closure of some hydro-plants. Gas-fired and diesel generation was used. During this time (2016–17), Tasmania was a net importer of (coal-powered) electricity via Basslink (Energy in Tasmania Report 2016–2017).

Dependence on fossil fuels: The urban area is heavily dependent on petroleum products, with consumption only slightly lower than electricity production, with use most in the transport sector: 853 million litres for Tasmania in 2013–2014 (Energy in Tasmania: Performance Report 2014–15, p. 151). The ABS Survey of Motor Vehicle Use 2017 finds Tasmania used a total of 674 megalitres of fuel for all transport uses in 2015–16. Tasmanian mined coal is used industrially, and coal in the form of briquettes for heating and heat beads for barbeques is imported for domestic use.

Registered vehicles: There are 201,122 vehicles registered across Hobart, Kingborough, Glenorchy and Clarence as of 2 July 2018. This is an increase of 4,560 vehicles since 30 June 2017. (Registration and Licencing Statistics, Tasmanian State Government. (www.transport.tas.gov.au/registration/information/statistics).

⁷ 'Broader region' here means within two–three hours land–transport. 'Material resources' includes all resources from water, food, and energy to concrete and steel.

⁸ 'Urban region' means the urban area and its immediate hinterlands.

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

3.2.3p Jobs in the manufacturing of local building materials. The term ‘locally available building materials’ is used to refer to materials of which the entire lifecycle (including all steps of the production chain: 1. extraction of raw materials, 2. manufacturing into building products, 3. sale and 4. use of building products, 5. recycling/end-of-life) takes place within the same region. (repeat)

4.2.1. Percentage of population with access to electricity, defined as either being connected to the grid (or reliable alternative sources) and receiving a continuous supply of electricity.

4.2.1p Percentage of population with a primary reliance on clean fuels and technology at the household level (rather than solid carbon-producing fuels).

6.2.1p Newly registered vehicles, defined as number of newly registered vehicles, including cars and trucks, per year (acting as a proxy for use of energy).

2. Water and Air

General Question: How sustainable are the levels of air quality and water quality in the urban environment?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The bodies of water in the urban region.	6
2. The ready access of all to potable water distributed with minimum energy-use.	8
3. The continuous presence of good quality air in the urban region.	8
4. The liveability of the urban region’s climate.	8
5. The carbon footprint of the urban area.	4
6. The development of climate-change adaptation strategies for the urban area.	5
7. The translation of air-and-water quality monitoring in the urban area into quality-improvement strategies.	5

Annotations explaining the scores:

Water quality: The Derwent River is improving in water-quality but remains heavily polluted with contaminated sediments in the estuary carrying the weights of decades of industry along the river. The 2015 State of the Derwent Report, suggested that still ‘an estimated load of 83.4 tonnes of zinc and 1.3 tonnes of cadmium is being “exported” to the Derwent from groundwater at the Nyrstar Zinc smelter every year’. Nyrstar implemented a groundwater remediation and stormwater treatment project. Their reverse osmosis plant came into operation in 2016. According to www.derwentestuary.org.au/beach-watch/ (accessed 12 August 2017) ‘Water quality is poor at Nutgrove Beach (west end), and it is also poor in several bays: Cornelian Bay, Marieville Esplanade, at Orange Pavilion (GASP), and Watermans Dock. Urban rivulets such as Hobart Rivulet and Browns River also have poor water quality. Swimming and other ‘full immersion’ activities are not recommended at any of these sites.’ Other sites were listed as good.

Drinking water quality: Potable water quality declined during the drought. Hobart’s drinking water supply comes from the River Derwent, and is treated and fluoridated at the Bryn Estyn Water Treatment Plant. In 2015–2016, 1,622 people in Greater Hobart were affected by temporary-boil water-alerts (Drinking Water Quality Report 2015–2016, Tasmanian Government).

Waste-water treatment: 84 per cent of Tasmania’s wastewater was treated to comply with EPA requirements in 2015–16. The Clarence Recycled Water Scheme is the largest reuse scheme in the State (2 354 ML recycled), followed by the Brighton/Bridgewater combined scheme (847 ML recycled). As a result of these two schemes, approximately 82 per cent of treated effluent was diverted from the Derwent Estuary to sustainable reuse in 2015–16 (Tasmanian Water and Sewerage State of the Industry Report 2015–16).

Air quality: The air quality in Hobart is generally very good, averaging 3.5 micrograms per cubic metre of fine particulates (PM2.5) in 2017 (Environment Protection Authority Tasmania). In winter, smoke from residential wood fires reduces the air quality, with coarse particulates (PM10) reaching peaks of 20 micrograms per cubic metre. This is still ‘good’ quality according to the National Standard.

Carbon Footprint of urban area: The carbon footprint is exacerbated by high car-use, low-density living, and use of flights and boats for transport, including by tourists. According to a recent report by the City of Hobart, “the transport sector has undergone a significant change from an established trend of increasing yearly fuel use to a reduction of 12 per cent from 2010–11 to 2014–15. This has, in turn, reduced transport emissions by 12 per cent” (Managing Hobart’s Carbon Footprint, 2017, p. 27). Still, car dependence levels remain high (over 75 per cent of weekday trips are made by car IN Greater Hobart; see section 1.5–Built Form and Transport).

Climate change adaptation strategies and policy development: The City of Hobart has some strategies in place, but more could be done, including in raising public awareness. Two key documents outlining the City’s strategy are *Managing Hobart’s Carbon Footprint (2017)* and *Responding to Climate Change (2017)*. Key climate change risks identified for the Hobart municipal area (by 2100) include the following:

- The temperature of very hot days to increase by up to 3°C. Extended heatwaves and more extreme temperatures are likely to enhance the occurrence and intensity of bushfires;
- Rainfall trending towards heavier downfalls interspersed by longer dry periods;
- Inundation along the Derwent Estuary coastline to increase;
- The current 100-year storm tide event (0.9 to 1.4 m above average sea level) may become a 50-year event by 2030, and a 2- to 6-year event by 2090 (*Responding to Climate Change. City of Hobart, 2017, p.12*);
- Bushfire risk is increasing in Hobart and it has become the most likely and frequent natural disaster (*Responding to Climate Change. City of Hobart, 2017, p. 18*).

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

- 6.2.1. Air quality, defined as annual mean levels of fine particulate matter (less than 2.5 microns, PM2.5) in cities (population weighted).
- 6.2.3. Proportion of waste-water, including sewerage and sullage, that is safely treated.
- 6.2.4. CO2 emissions per capita, per annum

3. Flora and Fauna

General Question: To what extent is biodiversity sustainable across the urban region?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 4

Particular Questions

How sustainable are the following aspects of the urban region?

1. The resilience of regional eco-systems to past and present urbanization.	4
2. The biodiversity of the region now by comparison with the time of its first major settlement.	2
3. The rate of native plant species’ extinction in the urban region across the last hundred years.	6
4. The tree coverage of the urban region—native or otherwise.	4
5. The continuing viability of native species of birds and animals in the urban region.	4
6. The relation of people in the urban region to non-domesticated animals and birds.	7
7. The translation of flora-and-fauna monitoring into sustainability-improvement strategies.	2

Annotations explaining the scores:

Vegetation, plants, and bush: Vegetation across large tracts of land on the urban-rural interface is threatened by housing spread. According to the 2009 State of the Environment Report, residential development has continuously expanded for the last seven decades, which in more recent years has resulted in a decline of the distance between the city and the bush. The land zoned for residential purposes has been progressively developed through building estates, the re-subdivision of large lots and infill development on both single dwelling and multi-unit lots. In addition, peri-urban locations have also been impacted by new developments as the semi ‘rural’ lifestyle they offer has become increasingly popular (*State of the Environment Report, City of Hobart, 2010*).

Biosecurity and non-native species: While Tasmania has strong biosecurity provisions, a number of invasive pests and weeds have impacted native wildlife and habitats in the Greater Hobart region. Introduced animals include rainbow lorikeets and mallard ducks that outcompete native species and carry parasites; European wasps and bumblebees that compete with native bees, butterflies and birds; cats that kill native wildlife; and rabbits that degrade habitats and encourage weed invasion (*Feral Animals of Tasmania, Threatened Species Network, 2008*). Tasmania has 115 declared weeds that must be controlled under the law. The declared weeds which create the biggest problems in Southern Tasmania include gorse, ragwort, pampas, blackberry, broom, Spanish Heath, Californian Thistle, willow, African Boxseed, boneseed and St John’s Wort (*Weed Management Factsheet NRM South*). Because Hobart retains a large amount of bush and urban vegetation, and has a large peri-urban bush interface, weeds pose a problem across the region.

Protected areas: As of June 2012, more than 45 per cent of the State’s territory consisted of protected areas, defined as natural reserves in public and private land. (*Natural Heritage Strategy for Tasmania 2013–2030*, Tasmanian Government, 2013, p.10).

Biodiversity conservation and sustainability strategies: There is very little funding allocated to the management and conservation of biodiversity. There is general public complacency concerning biodiversity issues. The most recent *State of the Environment* report for Tasmania dates from 2010. *The Natural Heritage Strategy for Tasmania 2013–2030* outlines the State’s key goals and guiding principles biodiversity. However, the document does not clearly specify measurable targets and funding allocations.

Accessible urban green space: People living in Hobart have 298m² green space per capita, the third highest capital city in Australia for proportion of green space. 93 per cent of the population have access to green space (*Australia State of the Environment Report 2016*).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

2.3.1. Proportion of urban space that is green (NB. This indicator is a subsection of the ‘proportion of open space in public use’).

4. Habitat and Settlements

General Question: How well does the urban area relate ecologically to the landscape on which it is built?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 5

Particular Questions

How sustainable are the following aspects of the urban region?

1. The human liveability of the regional topography.	8
2. The extent of original habitat still viable in the urban region.	4
3. The existence of natural spaces—either original habitat or parks and gardens—as integral and accessible to all local neighbourhoods. ⁹	9
4. The limiting of building in areas prone to natural risks such as flooding and landslides.	7
5. The use of appropriate materials in buildings. ¹⁰	4
6. The retrofitting of buildings and infrastructure to respond to environmental issues.	3
7. The translation of habitat monitoring in the urban area into robust conservation strategies.	3

Annotations explaining the scores:

Human liveability of the regional topography: Hobart is a low-rise city; no existing building in the CBD is above 58m. Current planning height limits of 45m have recently been threatened by a number of high-rise hotel development applications, but have been vigorously defended by the community. The City of Hobart commissioned a ‘Building Height Standards Review’ which sets out maximum (non-discretionary) height limits for inclusion in the Hobart Interim Planning Scheme 2015 and the Sullivans Cove Planning Scheme 1997. Public consultation closed in October 2018 and it is anticipated that the Council will finalise what limits will be carried into the planning schemes at the end of 2018. Population density in Greater Hobart is 3160 per km², making it the least densely populated capital city in Australia (ABS 2016).

Accessibility to open public space: According to a 2009 report elaborated by the City of Hobart, the Council’s recreational assets include the following:

- 19 major parks and gardens (e.g. St Davids Park, Fitzroy Gardens);
- 45 local neighbourhood parks (e.g. Swanston Street play area, Fern Tree playground);
- 41 reserves (e.g., Waterworks Reserve, Ridgeway Park, Knocklofty Reserve, Hobart Rivulet linear park);
- 9 special facilities (e.g., Intercity Cycleway, Salamanca Square, The Hobart Aquatic Centre, Skate Park)
- 20 sports fields (e.g., North Hobart Oval, TCA Ground, Cornelian Bay);
- 17 sporting facilities and structures (e.g., Buckingham Bowls Club, Creek Road Netball Centre, Domain Tennis Centre);
- Six broad area bush reserves (e.g. Council managed section of Wellington Park, Pipeline Track);
- Nine foreshore/beach reserves (e.g., Nutgrove Reserve, Long Beach Reserve);
- 15 undeveloped open spaces (e.g., vacant land).

⁹ Here ‘natural spaces’ means vegetated spaces—either original habitat or created natural settings such as parks.

¹⁰ Here ‘appropriate materials’ might be taken to mean such things as materials that appropriate to the climate or materials that are recycled, locally sourced, or sustainably produced.

Building materials: Houses and commercial/public buildings in Hobart have historically been constructed with little attention to climate issues such as through double-glazing and insulation. However, all houses built since 2003 have been required to be energy efficient. New builds must comply with the compulsory energy efficiency provisions and the Building Act 2016 (Energy efficiency for new homes, Tasmanian Government Consumer, Building and Occupational Services, www.cbos.tas.gov.au).

Habitat monitoring: There is a need for more systematic monitoring of habitats and biodiversity in the area. Challenges identified in the City of Hobart’s 2010 State of the Environment Report include urban development, weeds, fire, pets, and climate change (p.26).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

2.3.1. Proportion of open space in public use, defined as the average share of the built-up area of cities that is open space for public use for all—by sex, age and persons with disabilities.

2.1.2. Land–use mix, defined as the diversity of land–use per square kilometre, within a city or urban area (balanced through complementary uses and activities within a local area).

2.2.2. Population density, defined as the total city population divided by the total urban area in square kilometres.

2.3.2. Accessibility to open public space, defined as the proportion of city population (or total urban area) living (or located) less than 400 metres away from the open public spaces. Public space includes parks, squares, recreational green areas, and recreational facilities (not streets).

5. Built-Form and Mobility

General Question: Does the form of the urban area and its transport system support sustainable living?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 3

Particular Questions

How sustainable are the following aspects of the urban area?

1. The spread of the urban area—with particular concern in relation to urban sprawl.	4
2. The access of people to the different social amenities across the urban area through overlapping transport modes.	2
3. The accessibility of mass–transit systems in the urban area—particularly as extending to the urban fringes and non–formal zones. ¹¹	2
4. The degree of dependence on cars.	1
5. The level of support for using non–motorized transport such as bicycles and walking through provision of safe walking paths, protected bike–lane networks, low–speed residential zones, etc.	6
6. The implementation of energy–use reduction practices for air and sea transport.	3
7. The translation of transport monitoring into quality–improvement strategies.	3

Annotations explaining the scores:

Urban sprawl: Urban spread in the Hobart area is increasing. At the same time, population density (persons per kilometre squared) in the LGA of Hobart has been increasing a little from 647.4 in 2011, 646 in 2012, 647.5 in 2013, 650.4 in 2014, to 650.9 in 2015. (This compares for example to the LGA of Melbourne at 3,452 in 2015 or Inner Melbourne, a larger area comprising such suburbs as St Kilda, etc., at 4,321 in 2015; although it is higher than Greater Melbourne at 453.4 in 2015).

Transportation modes: The city’s topography, including the river and the mountains, inhibits good public transport options. Busses provide the only form of public transportation across the wider Hobart area. Metro Tasmania was established in 1998 and it is the agency responsible for public transport. According to Metro Tasmania’s annual report, in 2015 the company had 364 employees, including casual drivers. It had 218 buses for the whole of Tasmania.

Prevailing mode of transport: According to the City of Hobart, the transport sector has undergone a significant fuel use reduction in recent years (see section 1.2–Water and Air). Although in the Hobart LGA car dependence has decreased in the last years it still represents around 67 per cent of all weekday trips. Moreover, the proportion of car usage is significantly higher when considering the surrounding regions. On average, around 75 per cent of all weekday trips in Greater Hobart are made by car (either as driver or passenger); around 20 per cent are made by foot; and only 4 per cent are made by public transport (Managing Hobart’s Carbon Footprint, 2017, p. 28).

¹¹ Here ‘mass–transit systems’ should be taken to include both public and private transport systems such rail and bus networks.

Use of non-motorised transport: Many people walk and ride bicycles once in the city, but access to the city from the outer suburbs is by car. According to the ABS figures for 2011, of those people who used one method of transport to get to work 65,883 travelled by car, 4,311 by bus, 5,263 by walking, and 878 by bicycle. According to the Greater Hobart Household Travel Survey (Tasmanian Government, 2010), only 4 per cent of weekday trips taken by Greater Hobart residents are by public transport, and this falls to 1 per cent at weekends. However, for some, Hobart is a walkable city – 20 per cent of weekday trips are on foot.

Dependence on cars: According to the ABS the total number of registered vehicles in the Hobart LGA for 2016 was 46,958, and for the Area of Greater Hobart it was 189,753 vehicles, or nearly one vehicle for every person (including children and those who do not drive). Of those vehicles, 143 were registered as electric vehicles.

Policy-development and transport strategies: The City of Hobart is currently conducting a process of consultation for the development of a new transport strategy (see the Council’s consultation papers for the Transport Strategy 2018–30). It is expected that the final version of the document will be published in 2018.

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

2.1.1. Street Connectivity

2.1.1a City-street intersection-density, defined as the number of street intersections per one square kilometre of land.

2.1.1b Street density is defined as the number of kilometres of urban streets per square kilometre of land.

2.1.1c Proportion of total area of urban surface allocated to streets.

2.2.1. Land-use efficiency (as opposed to urban sprawl), defined as the ratio of the land-consumption rate to the population growth rate.

4.3.1. Proportion of the population that has convenient access to public transport disaggregated by age group, sex, and persons with disabilities.

6. Embodiment and Sustenance

General Question: How sustainable is the urban area in supporting the physical health of people?¹²

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The general physical health of residents.	6
2. The rate of infant mortality in the urban area.	8
3. The level of physical exercise enacted regularly by all people in the urban area.	5
4. The hygiene of urban streets for all people.	9
5. The nutrition of food generally eaten by residents.	6
6. The level of urban agriculture in the urban area, including in people's home sites.	6
7. The translation of physical health monitoring into quality-improvement strategies.	7

Annotations explaining the scores:

Physical health of residents: Tasmanians rated themselves at almost 3 per cent below the national average with 19 per cent describing themselves as in fair to poor health, and only 16.9 per cent in excellent condition (National Health Survey: First Results report for

2014–15, ABS). In Hobart, there is a clear difference in physical health between the inner urban area residents (highly satisfactory) and those who live in the outer area (unsatisfactory). According to the 2014–2015 figures, Tasmanians have the highest levels of overweight people and obesity in Australia (67.5 per cent of people, compared with a national average of 64.5 per cent). Poor high blood pressure rates for Tasmanians sits at 28.4 per cent; low exercise levels are 62.7 per cent; and levels of severe or very severe bodily pain are 10.8 per cent. These figures relate to the whole of Tasmania, yet they indicate an issue that is also relevant in the greater Hobart area.

Infant mortality: Infant mortality, defined as the death of children under one-year old, per thousand live births, is around four, running at the Australian average. (ABS records a rate of 4.1 in 2010; 4.5 in 2011; 3.6 in 2012; 3.6 in 2013; 5.2 in 2014; and 3.7 in 2015). It is rated here on the 2015 numbers.

¹² Here in the ecological domain the emphasis is on physical health. Mental health is considered in the cultural domain.

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

4.3.2. Death rate due to road traffic injuries.

5.1.1. Life expectancy at birth.

5.1.3. Under-five mortality, defined as the probability of a child born in a specific year or period dying before reaching the age of five, subject to age-specific mortality rates of that period.

7. Emission and Waste

General Question: How sustainable is the way that the urban area deals with emissions and waste?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 5

Particular Questions

How sustainable are the following aspects of the urban area?

1. The level of carbon emissions in the urban area.	5
2. The amount of hard waste produced by the urban area.	4
3. The treatment of sewerage, including the subsequent dispersal of the treated products.	5
4. The storm-water drainage system in the urban area.	5
5. The composting of household green and vegetable waste.	6
6. The level of hard-waste recycling in the urban area.	2
7. The translation of emissions-and-waste monitoring into quality-improvement strategies.	6

Annotations explaining the scores:

Waste generation: Around 25,000 tonnes of general waste is disposed to the McRobies Gully landfill each year, which represents a reduction of around 50 per cent when considering the period between 2005 and 2015. Relevant measures that allowed these reductions include recycling programs, organics composting, and inert waste recycling (Waste Management Strategy 2015-2030, City of Hobart, 2016, p. 3). Around 400,000 tonnes of waste is landfilled in Tasmania annually. The average waste generated per person around in the State is 0.8 tonnes per person per year (p. 10).

Waste-water treatment: 84 per cent of Tasmania's wastewater was treated to comply with EPA requirements in 2015-16. The Clarence Recycled Water Scheme is the largest reuse scheme in the State (2 354 ML recycled), followed by the Brighton/Bridgewater combined scheme (847 ML recycled). As a result of these two schemes, approximately 82 per cent of treated effluent was diverted from the Derwent Estuary to sustainable reuse in 2015-16 (Tasmanian Water and Sewerage State of the Industry Report 2015-16).

Recycling levels: According to the City of Hobart, there is a low level of waste that should have been placed in the kerbside recycling bin but ends up in the waste bin (12 per cent) (Waste Management Strategy 2015-2030, City of Hobart, 2016, p. 11). The bins available to Hobart city residents are: general waste (120L, collected weekly); recycling (240L, collected fortnightly); and green waste (240L, collected fortnightly, extra charge).

Policy development and strategies: A key policy document outlining the City of Hobart's strategy is Waste Management Strategy 2015-2030. The document defines as a primary goal "to achieve zero waste to landfill. This represents a long-term commitment to waste reduction that will provide environmental, financial, and social benefits to the community of Hobart" (2016, p. 3).

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

6.2.2. Solid-waste collection and disposal, defined as the proportion of urban solid waste that is regularly collected and with adequate final discharge, out of total urban solid waste generated by cities.



Hobart waterfront with shipping containers

Economics

1. Production and Resourcing

General Question: How sustainable are the broad patterns of production and resource-access in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 6

Particular Questions

How sustainable are the following aspects of the urban area?

1. The general prosperity of the urban area.	8
2. The local manufacturing base of the urban area for producing basic goods.	4
3. The access in the urban area to necessary primary resources.	6
4. The arts communities in the urban area. ¹³	7
5. The level of design expertise in the urban area. ¹⁴	6
6. The labour resources of the urban area. ¹⁵	6
7. The translation of the monitoring production practices into quality-improvement strategies.	6

Annotations explaining the scores:

General prosperity of the urban area: As of February 2018, the unemployment rate in Tasmania was 5.8 per cent (slightly lower than the 5.9 per cent recorded the previous year (Trends in the Tasmanian Labour Market Review, Department of Employment, 2018, p. 1). The median wage is \$48,789 for the Hobart LGA and \$45,766 for Greater Hobart (Quick Stats, ABS, 2016).

Income inequality: Hobart is a comfortable city for most, although people are under more pressure economically in the outer-suburban areas. A 2015 report on income inequality shows that people living outside the capital city in Tasmania were more likely to be in the bottom 20 per cent of the income spectrum than people living in any other Australian territory or state (Inequality in Australia, Australian Council of Social Service, 2015, p. 49–50). This is highly significant as a person in the top 20 per cent wealth group has around 70 times more wealth than a person in the bottom 20 per cent (Inequality in Australia, Australian Council of Social Service, 2015, p. 5).

Manufacturing: Greater Hobart has a relatively good manufacturing sector, but it tends to be in advanced manufacturing (boats, components, machined products, specialised or niche manufacturing) rather than manufacturing of 'basic goods'. Consequently, there is also a skilled manufacturing workforce. The fit of skills to the labour market is mixed.

GDP and primary resources: The Hobart LGA and Greater Hobart region are the economic powerhouse of the region. 24 per cent of Tasmania's GDP comes from the Hobart LGA. Manufacturing largely takes place outside of the LGA, and is not one of the City's key sectors. Although the LGA isn't a generator of primary resources, access to them is not difficult. Access to necessary primary resources depends upon importation.

Arts communities: Hobart LGA has a vibrant and thriving creative arts scene, demonstrated by a number of annual festivals, including the Festival of Voices (annually, winter); Dark MOFO Winter Festival (annually, mid-winter), The Taste of Tasmania (annually Summer) and Ten Days on the Island (Biennially, Autumn).

Labour resources: 66.7 per cent of the LGA completed Year 12 or equivalent compared to the national average of 51.9 per cent (2016). This is a basic indication of labour resource capability.

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

3.1.1. City Product (GDP) per capita (considering purchasing power parity), defined as the sum of the gross value added (wages plus business surplus plus taxes less imports), or the total final demand (consumption plus investment plus exports), relative to the city's total population.

¹³ 'Arts communities' might be taken to include different artists from musicians and painters to craft workers.

¹⁴ 'Design expertise' might be taken to include architects and planners to graphic designers and jewelry designers, etc.

¹⁵ 'Labour' includes both manual and intellectual labour resources from artisans and physical workers to doctors and engineers.

2. Exchange and Transfer

General Question: How sustainable is the current movement of money, goods and services into and through the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 6

Particular Questions

How sustainable are the following aspects of the urban area?

1. The opportunity to participate in ethical trade—for example, locally through community gardens and produce-markets, or globally through fair-trade networks.	5
2. The availability of basic goods, including through non-commercial and low-cost outlets.	6
3. The fair redistribution of financial resources through processes such as the tax system.	6
4. The resilience of external trade relations, including through bilateral exchange agreements between cities.	5
5. The provision of material aid and social support to people in need beyond the immediate the urban area.	6
6. The levels of debt carried by different sectors of the urban area—both public and private.	6
7. The translation of monitoring of accounting practices into quality-improvement strategies.	6

Annotations explaining the scores:

Local produce and markets: The City of Hobart experiences a lack of certain products in local supermarket (apples, for example, even though Tasmania is a major local producer). The main Tasmanian crops are potatoes, onions, carrots, cherries, apples, pears, and berries. In contrast to other states, and despite the increasing interest in local food supply systems, exporting and direct sales to processors are the predominant sales channels for fresh produce in Tasmania (Tasmania Local Food Supply Project, University of Tasmania, 2015, p. 24)., University of Tasmania, 2015). 73 per cent of food produced in Tasmania is exported interstate or overseas (Tasmanian Agri-Food Scorecard 2016-17, Department of Primary Industries, Parks, Water and Environment – Tasmanian Government, 2016-17, p. 3).

Gross state product: Gross state product is estimated to grow at 3.5 per cent in 2017-18, with growth of 2.25 per cent forecast for 2018-19 (Tasmanian Government, The Budget. Budget Paper No 1 2018-19).

Trade relations: Trade relations are affected or controlled by Australian legislation or regulation. – i.e. much of the tax system or financial social security support. There is little that can be done at the local level to alter these. Tasmania is also restricted by being an island state.

Ethical trade: Salamanca Market (weekly, Saturdays) and the Farm Gate Market (weekly, Sundays) are examples of vibrant local produce markets. Salamanca Market is operated by the City of Hobart, and is Tasmania's most visited tourist attraction. Farm Gate Market is a tourism accredited business with the Australian Tourism Accreditation Program and a member of the regional tourism body, Destination Southern Tasmania.

Sister cities: The City of Hobart has four friendship or sister-city relationships: Yaizu (Japan) and L'Aquila (Italy) are well established sister cities (41 and 21 years respectively). Hobart also maintains formal friendship relationships with Xi'an (China) and Fuzhou (China) (Hobart's International Relationships 2018). The main difference between sister and friendship relationships are that friendship agreements have a five-year review point at which either city can respectively walk away. Both relationships with Chinese cities are still fairly young (nearly four and two-years-old). Progress so far has largely been in the education sector with three relationships enabled with local schools. The Department of State Growth also works in this space.

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

3.1.2. Growth rate per employed person, defined as the annual city growth rate of real GDP per employed person.

3. Accounting and Regulation

General Question: How robust are the various accounting and regulatory frameworks in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The transparency of public spending.	7
2. The robustness of financial auditing systems that apply in the urban area. ¹⁶	8
3. The appropriateness of regulation of goods and services. ¹⁷	6
4. The application of consistent land-use regulation.	5
5. The appropriate regulation of financial systems that affect the urban area.	7
6. The appropriate regulation of labour practices, including health-and-safety considerations.	7
7. The translation of the monitoring of regulative practices into quality-improvement strategies.	7

Annotations explaining the scores:

Transparency of spending: There is reasonable transparency of government through the Audit Office and the Integrity Commission, although this is not well publicly understood. The financial auditing systems are robust, following national standards.

Land-use regulation: Planning regulations, including land-use rules and height regulations, have been the subject of significant controversy. In 2016, Singapore-based company Fragrance Group put forward a plan for 35-storey hotel. It was widely understood that this would be allowed under the proposed Tasmanian Government new planning laws (Reynolds, "Talking Point" The Mercury, 18 July 2017). Many public meetings occurred across Great Hobart during 2017, including A 'Hobart, Not High-Rise' held in July 2017. The Planning Matters Alliance was formed consisting of 46 community groups, which have come together over a range of issues concerning the Liberal Government's controversial new state-wide Planning Scheme.

Financial systems regulation: Public spending is largely outside the City's control and is exposed to risk. As of 2018, the Reserve Bank of Australia continues to hold interest rates at a National level at historical lows, as inflationary pressure remains subdued. At a global level, increasing fuel prices and some other key commodity prices are placing upward pressure on global inflation (Tasmanian Economy, Tasmanian State Government).

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

3.3.1. City-based revenue collection (as percentage of the total city revenue). This concerns the capacity of local government to manage and collect its resources.

4. Consumption and Use

General Question: How sustainable are the current consumption patterns of the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 6

Particular Questions

How sustainable are the following aspects of the urban area?

1. The re-use of goods, including through personal exchange and second-hand outlets.	6
2. The development of responses to food security and vulnerability to seasonal shortages of food.	7
3. The ongoing availability to all of goods and services deemed necessary for good living.	8
4. The ongoing availability to all of basic utilities—such as water, electricity, and gas.	6
5. The capacity of local people to respond to peak-oil issues, including rising costs.	3

¹⁶ Here consideration of the question should take in both public and private auditing systems.

¹⁷ Here, as elsewhere, the question of 'appropriateness' should be judged in relation to general public outcomes, including the poor or vulnerable, rather than outcomes pertaining to any one sectional interest.

6. The accuracy of advertising circulated locally in providing information about consumption goods.	4
7. The translation of the monitoring of consumption into strategies for enhancing good consumption.	6

Annotations explaining the scores:

Food security: Although Australia is generally considered to be food secure, there are groups of people at risk of food insecurity. Groups at risk in Tasmania include: people on low incomes; older people; young people and children living in low income houses; and people who live in isolated places, in particular ‘food deserts’ where healthy food is difficult to get or absent (Food for All Tasmanians. A Food Security Strategy, Tasmanian Food Security Council, 2012, p. 13). Many Tasmanians fall into one or more of these categories of groups at risk (given that the State’s population is the oldest of all Australian territories and it is more likely to be in the bottom 20 per cent of the income spectrum than people living in any other part of Australia). In 2012, the prevalence of food insecurity in Tasmania was about 5 per cent of the general population, although this figure was twice higher for lower income quintiles (Food for All Tasmanians. A Food Security Strategy, Tasmanian Food Security Council, 2012, p. 17). However, the Tasmanian Food Security Council and a number of not-for-profit organisations such as Foodbank, Second Bite and Produce to the People develop a number of programs and strategies to mitigate the risk of food insecurity in the region.

Energy security: According to the Tasmanian Energy Security Taskforce, “during 2015/16 Tasmania experienced one of the most significant energy security challenges in its history. The combined impact of two extreme events – record low rainfall during spring, combined with the Basslink interconnector being out of service – resulted in Hydro Tasmania’s water storage levels falling to historically low levels” (Tasmanian Energy Security Taskforce). Tasmania is also home to one of the most heavily regulated energy markets in Australia. Aurora Energy is currently the only electricity retailer that is servicing homes in Tasmania.

Peak oil: Tasmania has no natural gas, leaving it open to peak oil vulnerability. There are two natural gas retailers in Tasmania — Tas Gas and Aurora Energy.

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

3.3.2. Capital expenditure per capita, defined as the investment in city assets such as roads, education, health, power, housing etc., as a ratio of total population.

5. Labour and Welfare

General Question: How sustainable are the conditions of work across the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 6

Particular Questions

How sustainable are the following aspects of the urban area?

1. The range of livelihoods available in the area to those with appropriate skills.	4
2. The possibility for all of meaningful productive vocations.	5
3. The relative equity of access to secure employment in the area across differences of gender, age and ethnicity.	7
4. The capacity of the labour force to work productively.	7
5. The safety of workers.	8
6. The comprehensiveness of general welfare support processes across the urban area. ¹⁸	8
7. The translation of the monitoring labour practices into strategies for enhancing good working conditions.	8

Annotations explaining the scores:

Leading industries: According to ABS (latest findings from 2016) the main employing industries in Hobart are ‘health care and social assistance’ at 18.6 per cent; ‘public administration and safety’ at 15.9 per cent; and ‘education and training’ at 10.7 per cent (for more, see City of Hobart, Key Industry Sectors). Moving wider to Greater Hobart, the subject of this analysis, the main employing industries in Hobart LGA are ‘health care and social assistance’ at 14.8 per cent; ‘retail trade’ at 10.8 per cent; ‘public administration and safety’ at 10.7 per cent; and ‘education and training’ at 10.1 per cent (Eslake, Tasmania Report, 2017). Despite the importance of ‘agriculture, forestry and fishing’ to the economy, that sector only employed 1.9 per cent of working people in Greater Hobart (on 2016 figures).

¹⁸ ‘Welfare’ is broadly defined here to include, on the one hand, social security, pensions, and in-kind state support to individuals or families, and, on the other hand, support that comes from social networks, philanthropy and personal relations.

Worker safety: The safety record for workers in Great Hobart is good. WorkSafe Tasmania, a division of the Department of Justice, is tasked with “Advancing work health, safety and wellbeing in Tasmania” (WorkSafe Tasmania, www.worksafe.tas.gov.au).

Labour productivity: There is a recognised inequality, with Tasmania lagging behind the mainland in this area of working conditions. Tasmanian labour productivity was approximately 18 per cent lower than Australia in 2015/16.

Economic opportunity: Tasmania is though a very vulnerable state, being a small economy, so can be impacted more severely than other places. The range of employment opportunities (and wealth generating opportunities) available in Hobart are lower than Australia’s larger cities.

Access to secure employment: Employment and unemployment figures tend to mask important issues, including jobs precarity, underemployment and unsecure (flexible) working conditions. A 2017 report by The Australian Institute and Unions Tasmania found that 92 per cent of the jobs created in Tasmania in the previous year were part-time. Key issues affecting workers in Tasmania are as follows:

- The state has a higher proportion of part-time jobs: 37.7 per cent in August 2017 (versus 31.6 per cent for Australian average);
- Higher underemployment rate (since many of those part-time workers aren’t getting enough hours): 12.3 per cent in August (versus 9.1 per cent nationally);
- Similarly, total underutilisation (the sum of un- and underemployment) is also higher: 17.6 per cent in August 2017 (versus 14.1 per cent nationally);
- Youth unemployment is higher in Tasmania: 15.1 per cent versus 12.7 per cent nationally;
- Average earnings are significantly lower in Tasmania than in the rest of Australia: between 12 and 16 per cent lower, depending on how it is measured (Tasmanian Jobs. Survey Results, The Australian Institute, 2017).

* NB. In follow-up responses from the assessment panel, experts suggested that the overall score for this subdomain is a little optimistic and should be revised downwards.

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

3.2.1. Employment to population ratio, defined as the proportion of a country’s working age population that is employed.

3.2.1p Unemployment rate, by sex, age and persons with disabilities.

3.2.2. Proportion of informal employment in non-agriculture employment, by sex.

3.2.3. Manufacturing employment as a proportion of total employment.

3.2.3p Jobs in the manufacturing of local building materials. The term ‘locally available building materials’ is used to refer to materials of which the entire lifecycle (including all steps of the production chain: 1. extraction of raw materials, 2. manufacturing into building products, 3. sale and 4. use of building products, 5. recycling/end-of-life) takes place within the same region. (repeat)

6. Technology and Infrastructure

General Question: To what extent is basic infrastructure in urban area appropriate and supportive of a broad cross-section of needs?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

		Overall
		4
Particular Questions		
<i>How sustainable are the following aspects of the urban area?</i>		
1. The appropriateness of technologies and public infrastructure used to support the ongoing development of the urban area.		3
2. The robustness of information storage systems available to people in the urban area.		3
3. The adoption of new technologies in transport such as hybrid vehicles and intelligent transport systems.		2
4. The quality of the building stock, both commercial and housing, in the urban area		7
5. The resourcing of the education system with appropriate technologies and infrastructure readily available to locals.		5
6. The resourcing of the health system with appropriate technologies and infrastructure readily available to locals.		5
7. The translation of the monitoring of technology–use into strategies for enhancing technological application.		2

Annotations explaining the scores:

Internet connectivity: In 2011, according to ABS figures, household internet access for the Great Hobart stood at 71.3 per cent. According to 2016 figures, 80.6 per cent of households in the Greater Hobart region and 78 per cent in Tasmania had an internet connection. This is slightly lower than the 83.2 per cent average for Australia (Quick Stats, ABS, 2016).

Housing quality: While the housing stock in Hobart has some limitations with regard to suitability for the climate and natural hazards, its quality is generally good.

Housing affordability: As of 2018, Hobart was rated as Australia’s most unaffordable city for tenants. At 0.3 per cent, Hobart’s rental vacancy rates are the lowest of any Australian capital city. A study calculated Hobart’s average weekly rent at \$440 (Tenants’ Union of Tasmania Tasmanian Rents: December Quarter 2017). This results in Hobart renters spending 30 per cent of median weekly household income on rent, meaning rental stress is a significant issue. (National Shelter Community Sector Banking and SGS Economics and Planning, 2018).

Commercial buildings: As of July 2017, direct vacancy for office stock stood at 7.7 per cent. The vacancy rate in the six months to July was 8.2 per cent (Preston Rowe Paterson, Office Market Report, July 2017).

Vehicle dependence: Car dependency brings down the overall score. Ferries / light rail and improved cycle infrastructure are regularly occurring themes coming from the community (City of Hobart, Hobart: A Community Vision for our Island Capital, 2018 p.27). Real time bus tracking to smart phones do not exist in Tasmania. Likewise, hybrid vehicles are rare, as are electric charge points.

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

3.3.2p. The amount of investment on infrastructure as a proportion of the total urban investment. Infrastructure is defined as physical structures and essential services that connect society and facilitate its orderly operation.

7. Wealth and Distribution

General Question: Is the wealth of the urban area sustainable; and is it distributed in way that benefits all?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 5

Particular Questions

How sustainable are the following aspects of the urban area?

1. The public use of wealth of the urban area for maximum social benefit for all.	6
2. The maintenance of the inherited social wealth of the urban area—for example, the maintenance of heritage buildings or public spaces for maximum social benefit.	7
3. The relative equity of wage levels for different groups—as categorized by job, but also across difference of gender, age and ethnicity, etc.	6
4. The affordability of local housing for all.	3
5. The relative equity of accumulated wealth of the residents of the urban area.	4
6. The effectiveness of processes for redistributing wealth in the urban area.	6
7. The translation of the monitoring of wealth accumulation into strategies for enhancing the social benefits for all.	6

Annotations explaining the scores:

Wages and income: The median income for Greater Hobart in 2016 on ABS figures was \$45,766. This compared to the Greater Melbourne at \$48,053, and the Greater Sydney at \$50,422, however the cost of living was higher in both of those cities.

Housing affordability: During the April 2018 quarter, Hobart’s average house price was \$470,000. The city has experienced a significant rise in house prices in the past 5 years. A report from the Real Estate Institute of Tasmania (REIT) showed Hobart’s median house price rose 12 per cent in the year to February 2018.

Housing availability: This is becoming an increasingly hot topic, with the upsurge of Airbnb rentals putting pressure on the longer-term rental market for students and residents. Research indicates that Tasmania needs an average of 2,392 new dwellings a year to meet its long-term supply needs through to 2031. 27 per cent of these (656 per year) need to be low priced affordable homes. In particular, there is increasing demand for affordable homes appropriate to the needs of older persons (see ageing of Tasmanian population section in Labour and Welfare) (Tasmania’s Affordable Housing. 2015–2025 Strategy, Tasmanian Government, 2015, p. 12).

Homelessness: While Tasmania has the lowest homelessness rate in Australia, the number of people experiencing homelessness has increased Australia-wide over the last decade. In 2011, it was estimated that 31.9 per 10,000 people experienced homelessness in Tasmania, compared with the national average rate of 48.9.

Low income households: Tasmania has Australia's highest proportion of low income households; one third of households' main source of income are government pensions and allowances. Of these, almost one quarter (14,618 households) are in housing stress or crisis.

Vulnerable households: Particularly vulnerable households include women with children escaping family violence; people living with disability or mental illness; youth; and senior citizens (Tasmania's Affordable Housing, 2015–2025 Strategy, Tasmanian Government, 2015, p. 15).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

4.1.1 The proportion of people living in households lacking at least one of the following five conditions: having access to improved water; having access to improved sanitation facilities; having sufficient living area (not be overcrowded); having durable housing; and having security of tenure.

4.1.2 Housing affordability, defined as households with housing costs 30 per cent or more of gross income expressed as a percentage of all households in a city.

5.2.1 Poverty rate, defined as the proportion of population below the international poverty line of \$1.25 per day (or necessary to meet basic needs), by sex, age, employment status and geographical location (urban/rural).

5.2.2 Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population.

5.2.2p GINI coefficient. A Gini coefficient of zero expresses perfect equality, where all values are the same i.e. where everyone has the same income. A Gini coefficient of one (or 100 per cent) expresses maximal inequality among values i.e. a city in which one person has all the income.



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Politics

1. Organization and Governance

General Question: How well does the current system of governance function to maximize benefits for all?¹⁹

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 5

Particular Questions

How sustainable are the following aspects of the urban area?

1. The political legitimacy of the various levels of government relevant to the urban area.	6
2. The capacity of the leaders of the various kinds of governance relevant to the urban area.	5
3. The visions projected by the relevant levels of government for positively managing the form of the urban region—for example, in relation to managing urban growth.	4
4. The capacity of the administrative staff in the various levels of bureaucracy.	5
5. The authority of the various levels of governance to carry out policy.	7
6. The transparency of decision-making processes.	6
7. The translation of the monitoring of administrative practices into strategies for enhancing the quality of governance.	5

Annotations explaining the scores:

Political legitimacy: Australia has a strong and established model of political and bureaucratic governance, and Hobart is a part of that wider culture. However, while Australia has historically shown high levels of satisfaction with the democratic process, in the last decade the country has experienced a sharp decline in satisfaction levels outcomes (“Dial ‘F’ for fraud: Explaining citizens suspicions about elections”, Electoral Studies. Karp, Nai and Norris, 2018). A study conducted in 2016 showed that only 60 per cent of those interviewed were either ‘very’ or ‘fairly’ satisfied with democracy, compared to a high of 86 per cent in 2007. This represents a very significant decline in less than 10 years. Moreover, only 30 per cent of respondents expressed a good deal of interest in the electoral campaign, and only 26 per cent considered that people in government can be trusted, the lowest level of trust since it was first recorded in 1969 (Trends in Australian Political Opinion. Results from the Australian Election Study 1987–2016, Australian National University, 2017).

Levels of government: Despite limitations, the governance process across the various levels of government in the Greater Hobart area is satisfactory. Several levels of government affect the citizens of Hobart. These include local government (City of Hobart); state government (Tasmanian Parliament); and federal government (Australian Senate and Australian House of Representatives).

Voter participation: Voting is compulsory in federal and state elections, but remains optional in local government elections. Voter turnout for the City of Hobart elections (October 2018) was almost 60 per cent. In the state government elections (March 2018) voter turnout was 92.39 per cent, and the last federal election (2016) had a 92.82 per cent turnout (Australian Electoral Commission).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

1.1.1. Level of development and implementation of a national urban policy or regional development plans that (a) respond to population dynamics, (b) ensure balanced territorial development, and (c) increase local fiscal space.

¹⁹ Here the ‘current system of governance’ includes nationally, regionally, municipally and locally.

2. Law and Justice

General Question: How well does the dominant legal system work?²⁰

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The protection of human rights in the urban area.	8
2. The civil order of the urban area.	8
3. The responsiveness of local residents to legal requirements.	8
4. The treatment of all locals as equal before the law—this includes the specified articulation of complementary systems of justice such as customary or traditional law.	6
5. The fairness and circumspection of the dominant legal system.	6
6. The appropriateness of legal judgements in relation to various levels of penalty and punishment.	6
7. The translation of the monitoring of legal practices into strategies for enhancing the quality of legal administration.	8

Annotations explaining the scores:

Integrity of legal systems: Australia has a strong and established system of legal governance and practice, and Hobart is a part of that culture. Australia ranks 10th out of 113 countries in the Rule of Law Index. It scored highly on issues related to the respect of due process (0.85), no corruption (0.89), no improper government influence (0.95) and absence of civil conflict (1). The lowest scorings were related to discrimination in the justice system (0.51), accessibility and affordability (0.57), and unreasonable delays (0.64) (WJP Rule of Law Index 2017, <http://data.worldjusticeproject.org>).

Fairness of legal systems: Low scores on aspects related to non-discrimination and accessibility are consistent with a 2012 study conducted by the Law and Justice Foundation. The study suggested that disadvantaged or socially excluded groups in Tasmania are significantly “more vulnerable to experiencing multiple legal problems... less likely to take action to resolve these problems, less capable of handling their problems alone and more likely to suffer a variety of adverse consequences that may further entrench their social exclusion” (Legal–Australia Wide Survey. Legal Need in Tasmania, Law and Justice Foundation, 2012, p. 46).

Rates of offending: Homicide rates in Tasmania are very low. According to the 2017–18 Crime Statistics Supplement there was 1 murder recorded in 2017–18, a reduction of 8 offences from the previous year. This is the lowest number of murders recorded since 1988–89, when 1 murder was also recorded, and equates to a homicide rate of 0.19 deaths per 100,000 inhabitants. During the 2017/18 year, 20,430 offences against property were recorded in Tasmania, with 8,382 relating to burglary or theft. This equates to a theft rate of 1628 thefts per 100,000 inhabitants (2017–18 Crime Statistics Supplement).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

5.4.2. Theft rate, defined as the number of reported thefts affecting people, places of residence and commerce; and of vehicles and motorcycles, expressed in thefts per 100,000 inhabitants.

5.4.1. Homicide rate, defined as number of victims of intentional homicide per 100,000 population, by sex and age.

²⁰ Here the ‘dominant legal system’ includes the national, municipal, and local levels of law, and their intersection.

3. Communication and Critique

General Question: How sustainable is social communication access in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The level of positive freedom for political expression in the urban area.	8
2. The range of newspapers, broadcasters and public communications systems circulating information that is relevant to people living in the urban area.	7*
3. The proportion of households with open access to mediated communications—including radio, television, internet and other social communications.	8
4. The quality of public political analysis—both mainstream and alternative—easily accessible in the urban area, and with content pertaining to local issues.	6*
5. The openness of the urban region to non-violent political protest being enacted and heard.	8
6. The level of respect for privacy by public and private information gatherers.	7
7. The translation of the monitoring of media practices into strategies for enhancing the quality of media communication.	6

Annotations explaining the scores:

Freedom of political expression: Australia has a strong tradition of political freedom, freedom of expression and public communication. Hobart is a strong part of that culture, and fundamental civil and political rights are protected in the region. Recent attempts on the part of the Tasmanian Government to restrict political demonstrations at mines and logging operations were rejected by the High Court of Australia, which ruled that the intended restrictions “impinged on the Constitution’s implied freedom of political communication” (See “High Court upholds the public’s right to protest”, *The Australian*, 19 October 2017).

Range of local/regional media outlets: Hobart is lacking in sources of local news, content and analysis, with one local newspaper, limited resourcing in commercial broadcasting and reduced resources in locally sourced and produced ABC content. A 2014 report elaborated by the Department of Communication found that 50 per cent of Tasmanian metropolitan and regional areas are below the minimum-voices threshold established by the 1992 Broadcasting Services Act. The remaining 50 per cent is at the ‘minimum floor’ of voices (Media control and ownership, Department of Communications, 2014: 76–7). In the language of the Broadcasting Services (BS) Act, ‘voices’ are defined as the media owners or controllers of locally operating media outlets.

Quality of public political analysis: Three media corporations (Grant Broadcasters, Win Corporations and SC Austereo) control the vast majority of media outlets in Tasmania. This is below the minimum threshold established by the BS Act, which requires at least four voices in regional areas (Media control and ownership, Department of Communications, 2014, p. 76–77).

Quality of public political analysis: There have been criticisms levelled at restrictive regulations regarding the media coverage of the State’s elections. Under section 198 of 2004 Electoral Act, newspaper editors face up to three months’ jail and a fine of \$15,900 for reporting on the campaign on polling day. The restriction only applies to newspapers, while social media, television and radio stations are not covered by the law. Newspapers are pushing to reform the legislation (see for example *The Australian*, 3 March 2018; *Mercury*, 2 March 2018). The local newspaper, *The Mercury*, hosts the majority of online content behind a paywall. In view of the above, the accessibility of public political analysis in the region is limited.

Internet connectivity: According to 2016 figures, 81.3 per cent of households in Hobart and 78 per cent in Tasmania had an internet connection. This is slightly lower than the 83.2 per cent average for Australia (Quick Stats, ABS, 2016).

Openness to non-violent political protest: The opportunities for people to express their point of view e.g. through demonstrations, is very good. However, the Tasmanian Police website states that permits are required if a demonstration or protest is to be held wholly or partly on a public street, and that an eight-week lead time is required to ensure any permit is approved in a timely fashion.

*NB. During the revision process, experts suggested that the scores for variables 2 and 4 are optimistic and should be revised downwards.

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

4.2.2. Proportion of individuals using the internet.

4. Representation and Negotiation

General Question: How well are citizens of the urban area represented politically?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 6

Particular Questions

How sustainable are the following aspects of the urban area?

1. The active membership of residents in non-governmental organizations and advocacy groups—trades unions, professional associations, clubs, religious affiliations, etc.	8
2. The active participation of local people in the political processes of the urban area.	6
3. The power of local people to affect political decision-making processes relevant to the urban area.	6
4. The availability of municipal representatives for consultation with residents.	7
5. The active possibility of civil negotiation between groups with different interests—such unions and business.	5
6. The active and legitimate contestation of political power and office.	5
7. The translation of the monitoring citizen's engagement into strategies for enhancing the quality of public participation.	6

Annotations explaining the scores:

Engagement in political discourse: Australia has a strong reputation for engaging in political discourse through organisations or as individuals. Hobart is a part of that culture. The opportunity to be active in political processes is there, but the take-up generally is low, unless driven by a single issue. The implication is that citizens generally feel they are well represented.

Participation in political processes: Electoral turnout has been historically high in Tasmania (above 93 per cent). Although it has slightly decreased in recent times, voter turnout in the State remains one of the highest in Australia (Voter turnout. 2016 House of Representatives and Senate elections, Australian Electoral Commission, p. 11). Voter turnout for the City of Hobart elections (October 2018) was almost 60 per cent. The state government elections (March 2018) had a voter turnout of compared to 92.39 per cent and the last federal election (2016) had a 92.82 per cent turnout (Australian Electoral Commission).

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

1.2.2. Level of participation of local government, NGO and civil society in urban planning and decision-making.

5. Security and Concord

General Question: How secure and peaceful is the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 8

Particular Questions

How sustainable are the following aspects of the urban area?

1. The level of personal security in relation to human security issues—such as food security, natural disaster, economic crisis or military threat.	8
2. The physical safety of work places.	8
3. The level of personal security in relation to domestic violence or day-to-day street-conflict.	5
4. The provision of shelter for residents of the urban area without homes or those leaving behind difficult circumstances such as domestic violence.	8
5. The provision of active support for immigrants from outside the urban area escaping conflict, persecution or poverty.	8
6. The provision of affordable insurance processes supported by formal guarantees.	8
7. The translation of the monitoring of security threats into strategies for enhancing the quality of personal security for all.	8

Annotations explaining the scores:

Food security: Food insecurity is an issue for some sectors of the community — Aboriginal people, homeless people, street drug-users, and those with low or unreliable incomes. Not-for-profit organizations such as Foodbank of Tasmania, SecondBite and Produce to the People Tasmania, mitigate this risk. However, overall human security, including security from immediate natural disasters is good.

Support for immigrants and refugees: Hobart is generally strong in this area however the treatment of refugees and to a lesser extent immigrants in general, could be regarded as a weak spot. A report on the situation of refugees in Tasmania identified several limitations in supporting refugees on issues related to housing, employment, overcoming language barriers and discrimination (Dropped from the Moon. Refugee experiences in Tasmania, Social Action and Research Centre, Anglicare Tasmania, 2016).

Domestic violence: According to ABS figures on domestic violence for 2016, more than 44 per cent of reported cases of sexual assault and 45 per cent of assaults in Tasmania were related to family violence (Recorded Crime – Victims, ABS, 2016).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

6.1.1. Adoption and implementation of local disaster risk-reduction strategies (in line with the Sendai framework for Disaster Risk Reduction 2015–2030).

6.1.2. Population affected by hazardous events, defined as the number of deaths, missing persons and persons affected by disaster per 100,000 people in a city.

5.4.3. Proportion of women (15 years and older) subjected to physical or sexual harassment in public spaces, in the last 12 months, by perpetrator and place of occurrence. (repeat)

6. Dialogue and Reconciliation

General Question: Is meaningful dialogue possible between groups with significant political difference in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The recognition of differences of identity—including, in particular, recognition of the original inhabitants of the urban region.	8
2. The existence of active processes for negotiating different understandings of past events and histories of conflict.	8
3. The existence of active processes—formal and informal—for handling tensions between communities distinguished by ethnic, racial, religious, class, gender or sexual difference.	5
4. The level of social trust in other people.	9
5. The possibilities for enacting rituals and processes of remembrance and renewal.	8
6. The existence of processes—formal and informal—for welcoming new arrivals.	6
7. The translation of the monitoring of political tensions into strategies for enhancing the reconciliation processes.	5

Annotations explaining the scores:

Recognition of differences of identity: Tasmanian Aboriginal people have an age-old and distinctive connection with their ancestral lands and waters. In Hobart, the traditional and original owners of this land are the Muwinina. The traditional name of the area Hobart was built on is nipaluna. A Welcome to Country can be given only by Aboriginal people, to welcome visitors to their Land. ‘Country’ encompasses culture, knowledge, and the environment, as well as land and waters. An Acknowledgment of Country can be given by an Aboriginal person from a different Country, or by a non-Aboriginal person, and is appropriate at an official opening, meeting, concert, school assembly, or other event (Tasmanian Government, Acknowledgement and Welcome to Country).

Ongoing impacts of histories of conflict: The Tasmanian Aboriginal Centre (TAC) represents the political and community development aspirations of some members of the Tasmanian Aboriginal community. It is a community organisation that was developed in the early 1970s and has been funded by the federal government since 1973 (Tasmanian Aboriginal Centre, www.tacinc.com.au). TAC’s mission is “to provide benevolent relief of poverty, sickness, destitution and distress to address disadvantage among Aboriginal and Torres Strait Islander (‘Aboriginal’) people by any means possible” (The rule book of Tasmanian Aboriginal Corporation (ICN: 8554)).

Community engagement: Hobart is strong for engaging in cultural discourse through organisations or as individuals. The City of Hobart Community Engagement Framework (2018) places community engagement at the core of all other activities, and works on nine principles: Engagement culture; building relationships; inclusiveness and accessibility; participation; communication; transparency; considering the results; feedback; and evaluation and review.

Welcoming new arrivals: New arrivals to Hobart who are humanitarian migrants or refugees can access support from the Migrant Resource Centre Tasmania (MRC Tas). Since 1979, the not-for-profit organisation MRC Tas has been supporting people from migrant backgrounds to settle successfully in Tasmania (Migrant Resource Centre Tasmania www.mrctas.org.au/). All of Tasmania qualifies as a regional area under the Safe Haven Enterprise Visa (SHEV) scheme, which became operational in Tasmania on 10 October 2015 (Welcome, Tasmanian Government, www.multicultural.tas.gov.au).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

NA

7. Ethics and Accountability

General Question: How ethical is social life in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 6

Particular Questions

How sustainable are the following aspects of the urban area?

1. The grounding of municipal policies in clearly enunciated ethical principles.	5
2. The public accountability of powerful public figures—for example, corporate, media, and union leaders.	7
3. The general integrity brought to day-to-day transactions in public and private life.	9
4. The active role of public integrity and anti-corruption offices and organisations.	6
5. The possibility of meaningful public debate over ethical principles and their interpretation.	6
6. The institution of processes for responding consequentially to breaches in accountability.	7
7. The translation of the monitoring of corruption issues into strategies for enhancing integrity processes.	6

Annotations explaining the scores:

Ethical governance: Australia is strong for ethical governance and practice, and Hobart is a part of that culture. As of 2018, Australia ranked as the 13th least-corrupt nation in the Corruption Perception Index published by Transparency International, and it has held this ranking for the past three years. A survey conducted by the Tasmanian Integrity Commission in 2015 showed a significant improvement in the public perception of the local government. Respondents who strongly agree or somewhat agree that “most people in Tasmania’s public sector are honest” increased by 9 percentage points between 2013 (76 per cent) and 2015 (85 per cent). Similarly, the number of respondents who strongly agree or somewhat agree that “there is no point reporting corruption or unethical behaviour in the Tasmanian public sector as nothing will be done about it” has dropped by 8 percentage points between 2013 (30 per cent) and 2015 (22 per cent) (Community Perceptions Survey. Integrity Commission, 2017 p. 2).

Public integrity: At the personal level and in day-to-day interactions there is a general sense of trust. At the institutional level the level of ethics and accountability is more questionable. The lack of a formal anti-corruption body, other than the Integrity Commission, which has limited powers to address ethical behaviour in the public sector, reduces the scores on this matrix.

Anti-corruption offices: A comparative study on anti-corruption agencies in Australia suggested that the Tasmanian Integrity Commission “has major design flaws that render it less effective than other interstate counterparts”, for example the NSW Independent Commission Against Corruption ICAC. The report details a series of restrictions imposed to the Commission in terms of jurisdiction and its power to conduct full enquiries. “Between 2012 and 2016, NSW ICAC held 28 public hearings, referred 76 people for prosecution and made 123 findings of corrupt. Tasmania’s IC scored zero on these measures and has never held a full inquiry” (Tasmania’s Toothless Watchdog. A Comparison of the Tasmanian and NSW Anti-corruption Watchdogs. The Australian Institute, p. 2).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

1.1.2. Level of adoption of urban planning principles in the city–management process.



uggboot
↑ VGBOAT

BRASSO

MARLEY

Quince Paste

Homm us



DISABLED
TOILET

RICH
FAT
OLD
WHITE

WHEN

Hobart, art graffiti on the toilet door of the MONA catamaran ferry.

Culture

1. Identity and Engagement

General Question: To what extent does the urban area have a positive cultural identity that brings people together over and above the various differences?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The active cultural diversity of different local communities and groups.	8
2. The sense of belonging and identification with the local area as a whole in a way that connects across community and group differences.	8
3. The tolerance and respect for different language groups and ethnic groups in the urban area.	6
4. The tolerance and respect for different religions and communities of faith in the urban area.	5
5. The possibility of strangers to the urban area establishing and maintaining personal networks or affinity groups with current residents.	8
6. The sense of home and place.	8
7. The translation of the monitoring of community relations into strategies for enhancing identity and engagement.	5

Annotations explaining the scores:

Cultural diversity: Tasmania has a long history of migration and cultural diversity. According to ABS figures for 2016, the most common ancestries in Tasmania were English (33.3 per cent); Australian (32.3 per cent); Irish (8.2 per cent); Scottish (7.0 per cent); and German (2.7 per cent). Around 20 per cent of the local population was born outside Australia, most commonly England (3.7 per cent); New Zealand (1 per cent); and China (0.6 per cent). Although the proportion of migrants in the State was significantly lower than the national average of 33.3 per cent, migrants still represent one fifth of the local population (Census Data, ABS).

Tolerance and respect for differences of ethnicity: A recent report elaborated by the Anti-Discrimination Commissioner suggests that, while most Tasmanians are supportive of diversity (over 90 per cent of respondents evaluated positively that a society is made up of different cultures), some remain intolerant of people from different ethnic or religious backgrounds. Surveys conducted between 2009–2012 showed a decline in levels of acceptance of diversity within the Tasmanian community from around 41 per cent in 2009 to 37 per cent in 2012. Similarly, 89.5 per cent of respondents believe that racial prejudice exists in Tasmania; 40.3 per cent believe that there are cultural groups that do not fit into Australian society; almost 9 per cent self-identified as racist; and over 7 per cent of respondents were against inter-racial marriage (Protecting and Strengthening Australia’s Multiculturalism and Social Inclusion, Equal Opportunity Tasmania, 2017, p. 5).

Tolerance and respect for differences of religion: Of the 2016 census respondents from the greater Hobart area, 39.9 per cent indicated they had no religion. This is above the national response, where 29.6 per cent of respondents selected “no religion.” Fern Tree and West Hobart (both in the Hobart area) were among the top four most secular regions in Australia, with 55 per cent of the population stating they had no religious affiliation in 2016. Christianity (including Anglican, Catholic, and Uniting Church) was the largest religious group reported overall, at 52.1 per cent. Hobart is also home to small Jewish, Mormon, Buddhist, Hindu, Islamic and Bahá’í communities.

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

NA

2. Creativity and Recreation

General Question: How sustainable are creative pursuits in the urban area—including sporting activities and creative leisure activities?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 8

Particular Questions

How sustainable are the following aspects of the urban area?

1. The level of participation in and appreciation of the arts—from painting to story-telling.	9
2. The level of involvement in performance activities such as music, dance and theatre as participants and spectators.	8
3. The level of cultural creativity and innovation.	9
4. The level of support for cultural events—for example, public festivals and public celebrations.	9
5. The level of involvement in sport and physical activity as participants and spectators.	7
6. The affordance of time and energy for creative leisure.	8
7. The translation of the monitoring of creative pursuits into strategies for enhancing creative engagement.	8

Annotations explaining the scores:

Appreciation of the arts: According to ABS figures for 2013–2014, 62.7 per cent of Tasmanians attended an arts venue or event during the year. These numbers are slightly higher than the 58.9 per cent average for Australia. Tasmania has the second highest level of attendance when considering Australian states (ACT levels of attendance were significantly higher than the rest of the country: 76.3 per cent). However, the level of attendance in Hobart (68.7 per cent) was lower than other capital cities in Australia (in Inner Sydney was 74.9 per cent; Inner Melbourne, 81.2 per cent; Brisbane Inner City, 70.6 per cent; Adelaide Central, 76.1 per cent).

Participation in the arts: 28.1 per cent of Tasmanians and 28.3 per cent of Hobartians took part in at least one artistic or cultural activity, again, slightly higher than the national average for Australia (26.7 per cent) (ABS, 2015). Examples of regular arts festivals in the Hobart area include the Festival of Voices (annually, winter); Dark MOFO Winter Festival (annually, mid-winter), Taste of Tasmania (annually, Summer) and Ten Days on the Island (Biennially, Autumn).

Cultural innovation: The Museum of Old and New Art (MONA), located in the northern suburb of Berridale, was established in 2011. MONA houses the private collection of David Walsh, as well as rotating international exhibitions. The museum has become an international drawcard, attracting tourists to Hobart and amplifying the existing arts and cultural scene, with the resultant rise in visitor numbers and engagement known as “The MONA Effect.”

Participation in sports: Just over half the Tasmanian population aged 15 years and over are not sufficiently active in sport and physical recreation to receive the full health benefits of participation. 50.4 per cent of women are regular (3+ time a week) participants, compared to 42.6 per cent of men. Sport and recreation is a significant industry in Tasmania, employing over 13,000 people and directly contributing \$819.3 million to the economy, which accounts for 3.6 per cent of gross state product (The Value of Sport and Physical Recreation to Tasmania, Muller et al, 2010).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

NA

3. Memory and Projection

General Question: How well does the urban area deal with its past history in relation to projecting visions of possible alternative futures?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The level of respect for past traditions and understanding of their differences.	5
2. The protection of heritage sites and sacred places.	5
3. The maintenance of monuments, museums and historical records.	8

4. The active recognition of indigenous customs and histories.	6
5. The sense of hope for a positive future for the urban area as a whole.	7
6. The level of public discussion that actively explores possible futures.	7
The translation of the monitoring of themes of past and future into strategies for enhancing positive engagement.	7

Annotations explaining the scores:

Recognition of indigenous customs and histories: In Hobart, the traditional and original owners of the land are the Muwinina. The traditional owners of the land are acknowledged through a “Welcome to Country” or and “Acknowledgement of Country” prior to an official opening, meeting, concert, school assembly, or other event (Tasmanian Government, Acknowledgement and Welcome to Country).

Respect for traditions: The Tasmanian Museum and Art Gallery (TMAG) exhibition ningenneh tunapry is the story of the Tasmanian Aboriginal people, past and present. As the voices of aboriginal tasmania ningenneh tunapry education guide explains, “the phrase ningenneh tunapry means ‘to give knowledge and understanding.’” The exhibition presents the story of Trouwerner, or Tasmania. In 2018, artist Nigel Helyer installed an artwork in Franklin Square that was intended to draw together the histories of Tasmanian Aboriginal and European settler cultures, using two symbolic vessels. The artwork consisted of “a scaled hull of Sir John Franklin’s boat, the HMS Erebus; A full scale Tasmanian Aboriginal Canoe and a motion triggered soundscape.” (City of Hobart, Two Islands, Franklin Square).

Maintenance of monuments, museums and historical records: Hobart is home to many museums and historical records. These include the Tasmanian Museum and Art Gallery (TMAG); The Maritime Museum of Tasmania; Narryna Heritage Museum; Mawson’s Huts Replica Museum; Tasmanian collection of the National Archives of Australia; and the Tasmanian Archive and Heritage Office.

Protection of heritage sites and sacred places: 20 per cent of Tasmania consists of World Heritage sites. The Cascades Female Factory (1828–56) is located within the Hobart area, and acknowledges that the 25,000 convict women transported to Tasmania “made an important contribution to the development of the colonies through their labour and their vital role in family formation” (World Heritage Areas, Discover Tasmania, www.discovertasmania.com.au/about/world-heritage-areas)

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

1.2.1. Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation); the level of government (national, regional and local/municipal) expenditure; the type of expenditure (operating expenditure/investment); and the type of private funding (donations in kind, private non-profit sector and sponsorship).

4. Belief and Meaning

General Question: Do residents of the urban area have a strong sense of purpose and meaning?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The level of knowledgeable engagement in cultural pursuits in the urban area.	8
2. The possibilities for counter-ideologies being discussed and debated publicly.	8
3. The level of thoughtful consideration that lies behind decisions made on behalf of the people of the urban area.	8
4. The sense of meaning that local people have in their lives?	7
5. The extent to which people of different faiths or spiritualities feel comfortable practicing their various rituals, even when their beliefs are not part of the dominant culture.	6
6. The possibility that passions can be publicly expressed in the urban area without descending into negative conflict.	8
7. The translation of the monitoring of ideas and debates into strategies for enhancing positive engagement.	7

Annotations explaining the scores:

Engagement in cultural pursuits: The City of Hobart “seeks to facilitate, support and develop a range of programs and activities which enhance the cultural life of Hobart” (City of Hobart, Arts and Culture). It does so through public art installations; renting out its venues for events; and offering community development grants.

Public expressions of passion: Protest has a long social history in Tasmania, particularly around environmental causes. There have long been tensions between protesters and law enforcement, often relating to forestry activity. The Workplaces (Protection from Protestors) Act 2014 enacted on-the-spot fines of \$10,000 for individual protesters; prison time for second offences; and granted police the power to stop protests before they happened. The Act was overturned by the High Court in 2017.

Faith and spirituality: 39.9 per cent of the 2016 census respondents from the greater Hobart area indicated they had no religion. This is above the national response, where 29.6 per cent of respondents selected “no religion.” Fern Tree and West Hobart (both in the Hobart area) were among the top four most secular regions in Australia, with 55 per cent of the population stating they had no religious affiliation in 2016. Christianity (including Anglican, Catholic, and Uniting Church) was the largest religious group reported overall, at 52.1 per cent. Hobart is also home to small Jewish, Mormon, Buddhist, Hindu, Islamic and Bahá’í communities.

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

NA

5. Gender and Generations

General Question: To what extent is there gender and generational wellbeing across different groups?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 7

Particular Questions

How sustainable are the following aspects of the urban area?

1. The equality of men and women in public and private life.	7
2. The positive expression of sexuality in ways that do not lead to intrusion or violation.	8
3. The contribution of both men and women to bringing up children.	7
4. The availability of child-care in the urban area—whether formal or informal, public or private.	7
5. The positive engagement of youth in the life of the urban area.	6
6. The availability of aged-care in the urban area—whether formal or informal, public or private.	6
7. The translation of the monitoring of gender and generational relations into strategies for enhancing positive engagement.	6

Annotations explaining the scores:

Gender pay gap: According to the Tasmanian Government, in 2016 Tasmanian women earned on average around 15 per cent less than men (women earned \$1,238.60 per week while men earned an average of \$1,401.00 per week) (Gender Pay Gap, Tasmanian Government, <http://www.dpac.tas.gov.au/genderpaygap>). Overall, Australia has experienced a sharp decline in the Global Gender Gap Index in the last decade, falling from the 15th position in 2006 to the 46th position in 2016 (Global Gender Gap Report 2016). However, there has been a significant increase in female appointments in senior positions in the Australian Public Service (rising from 35 per cent to 43 per cent between 2006 and 2016) and in the number of Federal Circuit Court Judges (rising from 23 per cent to 42 per cent in the same period).

Equality of men and women in private and public life: As of 2016, the rate of parental-care leave for non-public sector employees was 95 per cent for women and 5 per cent for men. According to a report elaborated by the ABS, “while men and women averaged the same hours for paid and unpaid work overall, men spent twice as long as women in paid work and women spent twice as long as men in unpaid work (particularly domestic activities and child care)” (Gender Indicators. Selected Highlights, ABS, 2016, p. 4).

Employment across age, gender and ethnicity: According to Equal Opportunity Tasmania, the State’s population is the oldest of all states and territories in the country, and it is also ageing at the fastest rate. However, the report shows that “labour force participation rates in Tasmania sharply decline after 55 years of age and remain lower than nationally for all age groups over 45 years”. Moreover, the report suggests, “it is clear that older Tasmanians experience high rates of discrimination in employment, including being turned down for positions, on the basis of their age” (Willing to Work: National Inquiry into Employment Discrimination against Older Australians, Equal Opportunity Tasmania, 2016, p.6).

Gender representation: In 2018, Tasmania became the first Australian state to return a female-majority parliament, when 13 women and 12 men were elected to the House Of Assembly. The Tasmanian Government Policies and Programs for women are outlined at <http://www.women.tas.gov.au/>.

Sexual assault data: Across Tasmania, 184 instances of sexual assault were reported to police during the 2017–18 period, equating to a rate of 35 reported assaults per 100,000 inhabitants. The Crime Statistics Supplement 2017–18 notes that “27 per cent of sexual assaults reported in 2017–18 were committed more than a year before they were reported, some occurring several decades ago.”

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

- 5.3.2. Proportion of seats held by women in national parliaments and local governments.
- 5.3.2p Women in managerial positions, including public administration and private sector enterprises.
- 5.3.3. Proportion of women in the workforce.
- 5.4.3. Proportion of women (15 years and older) subjected to physical or sexual harassment in public spaces, in the last 12 months, by perpetrator and place of occurrence. (repeat)

6. Enquiry and Learning

General Question: How sustainable is formal and informal learning in the urban region?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall		8
Particular Questions		
<i>How sustainable are the following aspects of the urban region?</i>		
1. The accessibility of active centres of discovery—ranging formal scientific research institutes to places of playful discovery for children.		8
2. The active participation of people in the urban area in deliberation and debate over ideas.		8
3. The accessibility of active centres of social enquiry—both formal and informal—ranging in focus from scientific research to interpretative and spiritual enquiry.		8
4. The active participation of people in formal and informal education, across gender, generation, ethnicity, and class differences.		7
5. The existence of local cultures of writing—from philosophical and scientific to literary and personal.		9
6. The setting aside of time in the various education processes—both formal and informal—for considered reflection.		7
7. The translation of the monitoring of education practices into quality-improvement strategies.		7

Annotations explaining the scores:

Participation in education: According to 2016 ABS figures, 32.4 per cent of Hobart’s population has completed a Bachelor degree. The average for Tasmania was significantly lower at 16.2 per cent, while the average across Australia was 24 per cent.

Local cultures of writing: Hobart hosts a biennial Tasmanian Writers and Readers Festival, and is home to many award-winning authors, including Richard Flanagan (Mann Booker Prize), Danielle Wood (Vogel Literary Prize), and Heather Rose (Stella Prize). The national journal of letters, Island magazine, is published in Tasmania on a quarterly basis. Emerging writers are recognised through the Tasmanian Young Writer’s Fellowship.

Literacy rates: According to the 2006 Adult Literacy and Life Skills Survey, Tasmania had the lowest adult literacy skills in Australia. Functional illiteracy is high throughout the state. The Adult Literacy and Life Skills Survey found half of Tasmanians were assessed as having adequate prose (51.0 per cent) and document literacy skills (49.3 per cent), compared with 53.6 per cent and 53.2 per cent respectively for Australia. The same report found that 43.9 per cent of Tasmanians were assessed as “having adequate numeracy skills to effectively manage and respond to the mathematical demands of diverse situations.” This compared with 47.4 per cent for the whole of Australia (Adult Literacy in Tasmania, ABS, 2006).

School leavers: 27.5 per cent of Tasmanians aged 15–75 have no qualification beyond Year 10. The Tasmania Report 2017 highlights that “Year 12 completion rates are lower in every geographic category in Tasmania than they are in the corresponding regions of every mainland state” (The Tasmania Report 2017, Eslake, p51).

Active participation in education and employment: At 14 per cent, Tasmania’s youth (15–24 year olds) unemployment rate remains above the national average. Tasmania also has an above-average proportion of 15–24 year olds who are not working, actively looking for work, or in fulltime education (15.2 per cent as of year ended October 2017) (The Tasmania Report 2017, Eslake: 24).

Indicators from the UN–Habitat City Prosperity Index that might support your considerations:

- 5.1.2. Adult literacy rate, defined as the percentage of population aged 15 years and older who can read and write a statement related to his/her everyday life.
- 5.3.1. Proportion of youth (aged 15–24 years) not in education, employment or training.

7. Wellbeing and Health

General Question: What is the general level of wellbeing across different groups of residents?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall 8

Particular Questions

How sustainable are the following aspects of the urban area?

1. The sense of control that people have in the urban area over questions of bodily integrity and wellbeing.	8
2. The level of knowledge that people in the urban area have in relation to basic health issues.	8
3. The availability of consulting professionals or respected community elders to support people in time of hardship, stress or grief.	8
4. The capacity of the urban area to meet reasonable expectations that people in the urban area hold about health care or counselling.	8
5. The participation of people in practices that promote wellbeing.	8
6. The cultural richness of cuisine and good food.	9
7. The translation of the monitoring of health and wellbeing practices into quality-improvement strategies.	8

Annotations explaining the scores:

Participation in physical activity: A survey conducted by the Department of Health and Human Services found that two-thirds of Tasmanians reported sufficient levels of moderate and vigorous physical activity, according to the standards outlined by the 2014 Physical Activity Guidelines. While 81.2 per cent of respondents aged 18–64 years reported sufficient moderate and/or vigorous physical activity (MVPA), only 29.2 per cent engaged in twice weekly muscle strengthening exercises (Tasmanian Health Population Survey. Key Findings. Department of Health and Human Services, 2016, p. 6).

Health screening: Levels of preventive health screening increased for most screening types between 2009 and 2016. The report also found that “screening is most commonly reported by Tasmanians aged 45 years and over, although more than 60 per cent of younger Tasmanians reported blood pressure screening during the previous two years” (Tasmanian Health Population Survey. Key Findings. Department of Health and Human Services, 2016, p. 11).

Eating habits: The Tasmanian Health Population Survey also found that the number of Tasmanians that met the 2013 NHMRC guidelines of fruit consumption sharply declined between 2009 (49.8 per cent) and 2016 (39.3 per cent). Similarly, the survey results also exhibit a decline in the number of people meeting the vegetable consumption recommended levels (10.9 per cent in 2009 and 7.5 per cent in 2016). Overall, female respondents showed healthier eating habits when considering the NHMRC guidelines. There is a strong socio-economic gradient, with statistically significantly higher proportions of Tasmanians in the least disadvantaged quintile meeting national fruit guidelines; however, this pattern does not apply to eating vegetables (Tasmanian Health Population Survey. Key Findings. Department of Health and Human Services, 2016, p. 7).

Understanding basic health issues: Over 80 per cent of respondents reported a good understanding of health information, while around 10 per cent reported having difficulties in some occasions. Similarly, over 85 per cent of respondents said they find it usually or always easy to talk about their health concerns with a healthcare provider; this was highest in the over 65 year age group (91.4 per cent). These results were similar across regions and socio-economic quintiles (Tasmanian Health Population Survey. Key Findings. Department of Health and Human Services, 2016, p. 8).

Mental health: During the 2011–12 period, 15 per cent of the Tasmanian population reported having been diagnosed with a mental health or behavioural problem at some time in their life (compared with 13.6 per cent for Australia). However, the proportion of Tasmanian adults who reported having experienced high to very high levels of psychological distress in the four weeks prior to the interview was, at 8.9 per cent, lower than for Australia as a whole, at 10.8 per cent (The State of Public Health 2013, Population Health, Department of Health and Human Services, Tasmania).

Health challenges: The Legislative Council Sessional Committee Government Administration A Sub-Committee on Acute Health Services in Tasmania is currently underway (November 2018), with the mission “To inquire into and report upon the resourcing of Tasmania’s major hospitals to deliver acute health services, including mental health services, to the people of Tasmania” (Acute Health Services in Tasmania).

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

NA



Christchurch Cathedral, partly destroyed by the 2011 earthquake. By mid-2019 stabilization and redesign work had begun.

Christchurch's Sustainability Profile

Christchurch is home to 395,000 people; it is the seat of the Canterbury Region and the second largest city on New Zealand. The city was founded by Royal Charter in 1856, making it officially the first established city in the country. Prior to European settlement, the area now known as Christchurch was inhabited by moa hunters, Maori ancestors who probably arrived to the South Island of New Zealand as early as AD 1200–1250. Current estimations suggest that, by the time of European arrival, around 100,000 Maori lived in New Zealand.

However, by late-eighteenth and early nineteenth centuries a major demographic change affected the local population. The key factor driving a population decline was exposure to diseases such as measles and influenza introduced by Europeans. Māori were extremely vulnerable to the ravages of these new diseases and the effects were severe. However, potential devastation was averted by low-population densities and residence away from most of the disease-ridden coastal ports. Nowadays, about 10 per cent of Christchurch population are Maori (about 36,600).

Christchurch is a low-lying city and was originally built on a series of swamps, which has been the cause of long-term drainage and flooding issues, particularly during heavy rainfall. Most of Christchurch waterways are spring-fed and, in fact, the city has one of the biggest spring-fed river networks in New Zealand. However, only a small portion of the original freshwater wetlands remain today, and many of these are in a precarious state. Both the city's wetlands and surrounding lands have been dramatically modified by agriculture and other human activities, which has also had a major impact on the region's unique biodiversity. Between 2010 and 2012, Christchurch and the Canterbury Region experienced a series of major earthquakes which have had longstanding effects in the region. The city has gradually recovered from these events in the last decade.

Christchurch City Council comprises the Mayor and 16 councillors elected in each of the 16 wards. In addition, the local government is constituted by seven Community Boards, each representing two or three wards. Historically, electoral turnout for local government elections in Christchurch has been significantly lower than for the general election. About 40–45 per cent of eligible voters participate in local government elections while over 80 per cent of Christchurch citizens tend to take part in general elections. The city's policy agenda over the last decade has been largely driven by the post-earthquake recovery programs and initiatives.

The Christchurch city economy has been able to pull-ahead, even when faced with the challenging circumstances brought about by the 2010 and 2011 earthquakes. These events influenced the economy and steered it in a direction that is now the 'new normal'. The city has historically been a strong manufacturing hub and tourism destination with the retail and accommodation industries being the main beneficiaries. The rebuilt strategy contributed to the emergence of a new driver in the city economy: the construction sector, which had a major influence in the economic recovery in the afterwards of the 2010–2011 earthquakes. Since 2016, however, the economy has been gradually shifting to other sectors, such as the accommodation and food-sector, the health-care and social-assistance sector and the professional, scientific and technical services sector.

Christchurch hosts a vibrant cultural scene, and it is home of important art venues and cultural institutions such as the Christchurch Art Gallery, the Canterbury Museum, the Arts Centre, the Christchurch Botanic Garden and the International Antarctic Centre, among others. While the earthquakes had devastating effects for the arts infrastructure of greater Christchurch, the city's response contributed to a gradual recovery. The quakes damaged or destroyed important art venues and heritage buildings, including the Christchurch Art Gallery, the Town Hall, as well as individual artists' studios. Most of these venues and cultural spaces have been restored in the past years.

Christchurch as Gateway City

Christchurch has a rich and long history as an international Antarctic gateway. Indeed, some of the very first Antarctic expeditions were launched from the city and the Lyttleton Harbour area. Heritage buildings and cultural institutions (such as the International Antarctic Centre) celebrate the city's Antarctic legacy and identity.

Importantly, the city functions as a logistical base for several National Antarctic Programs. The United States, Italian, Korean and New Zealand national programmes operate out of Christchurch, with these organizations alone bringing in more than \$100 million in economic impact to the city's economy annually. In addition, Germany, France and China also use Christchurch as a gateway to the Ross Sea region, embarking on various southern expeditions from the Port of Lyttleton and Christchurch International Airport. Christchurch also hosts the headquarters for the Council of Managers of National Antarctic Programs (COMNAP), which consists of 30 National Antarctic Program Members.

Beyond the operation of National Antarctic Programs, it is estimated that Antarctic-related activities generates an annual economic contribution to Christchurch of more than \$200 million. This includes more than 100 ice-bound flights departing from Christchurch International Airport every season, carrying more than 5,500 passengers and 1,400 tonnes of cargo, including fresh food.

Crucially, Christchurch has developed a detailed Antarctic Gateway Strategy, embracing the city’s custodial responsibility towards the Antarctic region in line with the values of environmental protection, international co-operation and scientific knowledge. In doing so, the city has assumed a leadership role in environmental sustainability, detailing specific goals such as being carbon neutral by 2030, supporting Antarctic climate change research and developing innovative solutions to reduce environmental footprint.

The Level of the Assessment

The Christchurch Assessment Panel met in a half-day workshop in 2017 to conduct the Christchurch assessment. It was done initially as a Rapid Assessment (see Table 4 below) by 20 experts in Christchurch, part of the larger Critical Reference Group, each with expertise across the four domains of ecology, economics, politics and culture. We provided these four groups with facilitators and scribes and asked them to respond to the main question in each of the subdomains with reference to the third-level aspects, roughly annotating the assessment as we went along. The core team from Western Sydney University then went through the assessment refining and developing both the annotations and assessment details. This draft was then circulated to the whole Critical Reference Group for further discussion and refinement, building towards an Annotated Assessment Profile.

Table 4. The Level of the Assessment Process for Christchurch

<p>Each of the first four levels can be done as a registered assessment. This involves registering the assessment with either the Cities Programme or Metropolis, including a description of the process that your team went through to complete the assessment. Registration verifies that the process was conducted thoroughly and well.</p> <p>The profile mapping process can be done at six levels:</p> <p>1. Rapid Assessment Profile By responding to the single ‘general question’ under each ‘perspective’ by marking the 9-point scale.</p> <p>2. Aggregate Assessment Profile By responding to the ‘particular questions’ under each ‘perspective’ by marking the 9-point scale).</p> <p>3. Annotated Assessment Profile By completing the exercise at Level 2 and writing detailed annotations about how the points on the scale were derived.</p> <p>4. Comprehensive Assessment Profile, I By completing the exercise at Level 3 and writing a major report on the urban area using the questions to guide the writing.</p> <p>5. Comprehensive Assessment Profile, II By completing the exercise at Level 3 and assigning metrics-based indicators to each point on the scale.</p> <p>6. A Certified Assessment By completing an Assessment Profile at one of the previous levels, and then negotiating with the Circles Project team to have their Global Advisors critical respond and certify that assessment.</p>	<p>The ticks below indicate the profile exercise that has been completed.</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p>
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Table 5. The Urban Region Being Assessed

<p>The name of urban area in question: (That is, the name of the city, town, or municipality, etc., that is being assessed.)</p>	<p>Christchurch (NB. the metropolitan region, not just the Local Government Area)</p>
<p>Geographical spread of the urban area in km².</p>	<p>1,403 square kilometres</p>
<p>Population of the urban area.</p>	<p>396,700²¹</p>
<p>Period of the assessment:</p>	<p>2018</p>

²¹ Statistics New Zealand, 2017.

Figure 5. Sustainability Profile of Christchurch

CHRISTCHURCH ²⁰¹⁸

ECONOMICS

Production & Resourcing
 Exchange & Transfer
 Accounting & Regulation
 Consumption & Use
 Labour & Welfare
 Technology & Infrastructure
 Wealth & Distribution

ECOLOGY

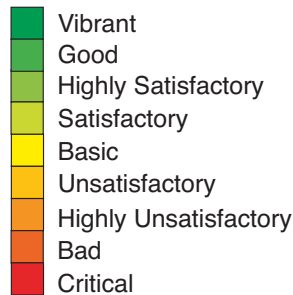
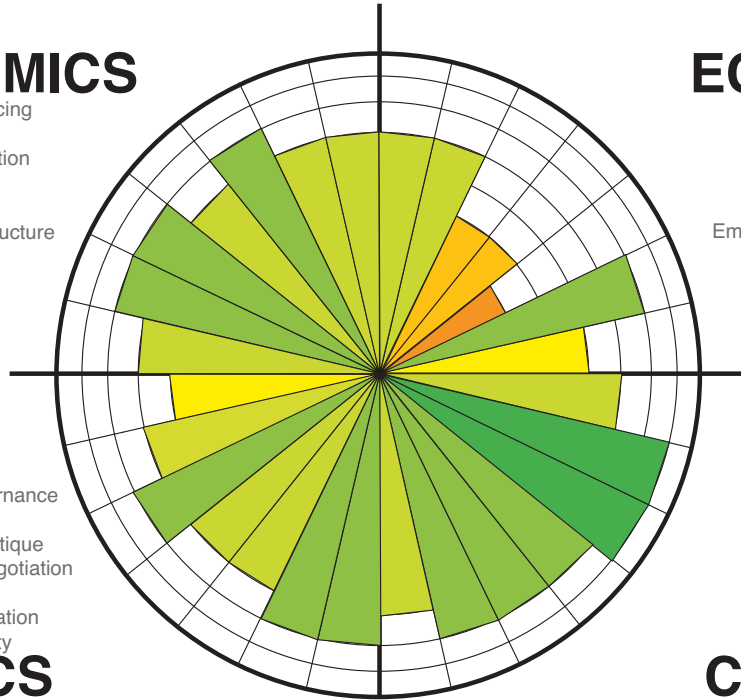
Materials & Energy
 Water & Air
 Flora & Fauna
 Habitat & Settlements
 Built-Form & Transport
 Embodiment & Sustenance
 Emission & Waste

Organization & Governance
 Law & Justice
 Communication & Critique
 Representation & Negotiation
 Security & Accord
 Dialogue & Reconciliation
 Ethics & Accountability

POLITICS

Identity & Engagement
 Creativity & Recreation
 Memory & Projection
 Belief & Meaning
 Gender & Generations
 Enquiry & Learning
 Wellbeing & Health

CULTURE



CIRCLES OF SUSTAINABILITY



Christchurch, the Avon/Otakaro river flows through the centre of the city and out to an ecologically sensitive estuary that feeds into the Pacific Ocean.

Urban Profile Questionnaire for Christchurch

Ecology

1. Materials and Energy

General Question: How sustainable is energy production for the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Overall, Christchurch was evaluated to be at 6 (Satisfactory) with regard to the sustainability of energy, but a couple of scores stand out: The availability of food grown locally and materials sourced regionally were considered to be good or even vibrant, while continued dependence on fossil fuel in the urban area was seen as highly unsatisfactory.

Particular Questions		Overall
How sustainable are the following aspects of the urban area?		6
1. The availability of material resources in the broader region. ²²		8
2. The availability of food grown in the immediate urban region. ²³		9
3. The availability of minerals and metals sourced from the broader region.		5
4. The proportion of electricity produced for the urban area by renewable means.		7
5. The dependence of the urban area on fossil fuels.		3
6. The use of recycled materials.		5
7. The translation of resource-use monitoring into resource-reduction strategies.		6
Annotations explaining the scores:		
<p><i>Energy:</i> In 2015, New Zealand sourced 40 per cent of its total energy from renewable resources. Most of this was used to produce electricity (85 per cent of electricity was produced by renewable means); the rest was mainly wood-fuel used to produce heat for industrial processes and home-heating (Energy in New Zealand 2017, Ministry of Business, Innovation & Employment). The Canterbury Region supplies 54 per cent of all hydro electricity generation and 26 per cent of the national electricity generation capacity. Canterbury's power consumption represents approximately 14 per cent of national demand (Environment Canterbury Regional Council).</p> <p><i>Dependence on fossil fuels:</i> Despite the significance of electricity production by renewable means, participants at the workshop considered that Christchurch urban area is still largely dependent on fossil fuels. Indeed, the prevailing modes of transport and home heating are based on fossil fuels (see below data on built form and transport). According to a recent report published by Christchurch NZ, the urban region has 'high quality water sourced from over 50 confined aquifers deep underground and low water charges for both residential and commercial users' (Canterbury Report, Spring 2017, p. 13).</p> <p><i>Farming:</i> The Canterbury Region is of great significance to New Zealand's agricultural production, representing approximately 20 per cent of its farmland. It is the largest region in New Zealand (by Regional Council boundaries), with 3 million hectares of agricultural and exotic forestry land. This includes 1.2 million hectares of grassland and a similar area of tussock and danthonia that is farmed. The Region's agricultural production consists of a diverse mix of intensive dairy, sheep and beef and cropping operations on the plains, to extensive sheep and beef farms on high country (Dynes, Burggraaf, Goulter and Dalley, 2010, p. 1).</p>		

²² 'Broader region' here means within two-three hours land-transport. 'Material resources' includes all resources from water, food, and energy to concrete and steel.

²³ 'Urban region' means the urban area and its immediate hinterlands.

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

3.2.3p Jobs in the manufacturing of local building materials. The term 'locally available building materials' is used to refer to materials of which the entire lifecycle (including all steps of the production chain: 1. extraction of raw materials, 2. manufacturing into building products, 3. sale and 4. use of building products, 5. recycling/end-of-life) takes place within the same region. (repeat)

4.2.1. Percentage of population with access to electricity, defined as either being connected to the grid (or reliable alternative sources) and receiving a continuous supply of electricity.

4.2.1p Percentage of population with a primary reliance on clean fuels and technology at the household level (rather than solid carbon-producing fuels).

6.2.1p Newly registered vehicles, defined as number of newly registered vehicles, including cars and trucks, per year (acting as a proxy for use of energy).

2. Water and Air

General Question: How sustainable are the levels of air quality and water quality in the urban environment?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

In terms of sustainability of air quality and water quality, Christchurch was evaluated to be satisfactory (6), with the development of climate-change adaptation strategies considered unsatisfactory and access to potable water (4), air quality and the region's climate liveability all considered to be good (8).

<i>Overall</i> 6	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The bodies of water in the urban region.	5
2. The ready access of all to potable water distributed with minimum energy-use.	8
3. The continuous presence of good quality air in the urban region.	8
4. The liveability of the urban region's climate.	8
5. The carbon footprint of the urban area.	5
6. The development of climate-change adaptation strategies for the urban area.	4
7. The translation of air-and-water quality monitoring in the urban area into quality-improvement strategies.	6
Annotations explaining the scores:	
<i>Freshwater quality:</i> According to a recent water-quality monitoring report prepared by the Canterbury Council about 24 per cent of the bodies of water in the Region were unsuitable for swimming and recreational purposes (14 per cent of rivers and lakes were assessed as Very Poor and 10 per cent as Poor). The remaining 76 per cent was considered suitable for human contact and recreational activities (14 per cent was graded Very Good; 38 per cent Good and 24 per cent Fair) (Canterbury Water Quality Monitoring for Contact Recreation. Annual Summary Report 2016/17).	
<i>Air quality:</i> Wood-burning for home-heating is one of the main sources of air pollution in Christchurch and the Canterbury region. However, PM10 (particulate matter 10) concentrations have decreased significantly over the last 15 years. This has been associated with a decrease in the total number of wood-burners, and the replacement of many older wood-burners with newer models (Air Quality Status Report: Christchurch 2014, Canterbury Regional Council) Estimated emissions of PM10 from home-heating have fallen significantly since 1999, but they still contribute the majority of overall PM10 emissions.	
Wood-burning is also the main source of PM2.5 (particulate matter 2.5) and BaP (Benzo[a]pyrene), and burning CCA (Copper Chrome Arsenic)-treated wood may be a significant source of arsenic in the air (Air Quality Status Report: Christchurch 2014, Canterbury Regional Council).	
<i>Carbon footprint:</i> In Christchurch, motor vehicles are the largest contributors of carbon monoxide (CO) and nitrogen oxide (NOx) emissions (65 per cent and 81 per cent respectively). Motor vehicles also contribute sulphur oxide (SOx), benzene, and particulate matter (PM)21. It has been estimated that 48 people in Canterbury (43 people from Christchurch) die each year from vehicle pollution (Canterbury Regional Report, Health Impact Assessment 2011).	

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

- 6.2.1. Air quality, defined as annual mean levels of fine particulate matter (less than 2.5 microns, PM2.5) in cities (population weighted).
- 6.2.3. Proportion of wastewater, including sewage and sullage, that is safely treated.
- 6.2.4. CO2 emissions per capita, per annum

3. Flora and Fauna

General Question: To what extent is biodiversity sustainable across the urban region?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

The sustainability of biodiversity across the urban region was deemed unsatisfactory (4), especially when compared to historic levels (2). Tree coverage, viability of native birdlife and the relationship between residents and non-domesticated animals were all considered to be satisfactory (6).

<i>Overall</i> 4	
Particular Questions	
<i>How sustainable are the following aspects of the urban region?</i>	
1. The resilience of regional eco-systems to past and present urbanization.	3
2. The biodiversity of the region now by comparison with the time of its first major settlement.	2
3. The rate of native plant species' extinction in the urban region across the last hundred years.	4
4. The tree coverage of the urban region—native or otherwise.	6
5. The continuing viability of native species of birds and animals in the urban region.	6
6. The relation of people in the urban region to non-domesticated animals and birds.	6
7. The translation of flora-and-fauna monitoring into sustainability-improvement strategies.	5
Annotations explaining the scores:	
<i>Birds:</i> About one-third (32 of 92) of New Zealand's resident indigenous seabird taxa and more than half (8 of 14) of the country's resident indigenous shorebird taxa are threatened with extinction (See report Conservation status of New Zealand birds, 2012, prepared by the Department of Conservation).	
<i>Wetlands and freshwater species:</i> several of Canterbury's native freshwater species are in decline, or are nationally threatened. In addition, less than 10 percent of the Region previously-extensive freshwater natural wetlands remain. Drivers of change, particularly wetland loss since European settlement, include drainage, diversion of water, infilling, reclamation, urban development, flooding, fire, vegetation clearance, cultivation, grazing and spread of introduced species (Target Progress Report 2017, Canterbury Water).	
<i>Tree coverage:</i> The tree-canopy cover in Christchurch is 15.59 per cent, although it varies widely across neighbourhoods (ranging from a low of 7.15 per cent in the Hornby ward to almost 30 per cent in the Coastal ward) (Tree Canopy Cover in Christchurch, Morgenroth, 2017, p. 4).	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
2.3.1. Proportion of urban space that is green (NB. This indicator is a subsection of the 'proportion of open space in public use').	

4. Habitat and Settlements

General Question: How well does the urban area relate *ecologically* to the landscape on which it is built?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Ecologically, Christchurch's urban area is evaluated to relate at a basic level (5) to the landscape on which it is built. While plentiful natural spaces (8) and human liveability (8) were appreciated, the suitability of buildings and lack of robust conservation strategies are considered to be highly unsatisfactory (3).

Overall 5	
Particular Questions	
<i>How sustainable are the following aspects of the urban region?</i>	
1. The human liveability of the regional topography.	8
2. The extent of original habitat still viable in the urban region.	4
3. The existence of natural spaces—either original habitat or parks and gardens—as integral and accessible to all local neighbourhoods. ²⁴	9
4. The limiting of building in areas prone to natural risks such as flooding and landslides.	7
5. The use of appropriate materials in buildings. ²⁵	4
6. The retrofitting of buildings and infrastructure to respond to environmental issues.	3
7. The translation of habitat monitoring in the urban area into robust conservation strategies.	3
Annotations explaining the scores:	
<p><i>Habitat:</i> Christchurch's surrounding lands have been dramatically modified by agriculture and other human activities. The city was originally built on a series of swamps, which has been the cause of long-term drainage and flooding issues (The Christchurch Waterways Story, Watts, 2014). However, only a small portion of the original freshwater wetlands remain today, and many of these are in a precarious state (Waterways, Wetlands and Drainage Guide, Christchurch City Council, 2013).</p> <p><i>Open public space:</i> Christchurch City Council manages 950 parks, riverbanks and garden areas covering around 9000 hectares. As of 2010, the city's public parks' provision stood at around 1.1 ha/1000 people for neighbourhood parks, 3.5 ha/1000 for sports parks and 18.1 ha / 1000 people for regional parks (Public Open Space Strategy 2010–2040, Christchurch City Council, p. 13).</p> <p><i>Infrastructure and environment:</i> As a result of the 2010 and 2011 earthquakes, more the 160,000 properties in greater Christchurch were reported as damaged, and around 15 per cent of these were assessed as seriously damaged. In a 2012 survey, over half the respondents (51 per cent) reported having to 'live day to day in a damaged home' and 22 per cent said this had a negative impact on their everyday life. Housing New Zealand Corporation (HNZC) and Christchurch City Council (CCC) provide social housing to people with a serious housing need (Canterbury Wellbeing Index 2016; 2012 Wellbeing Survey, Canterbury Earthquake Recovery Authority). As of March 2016, it is estimated that approximately 300 people remained living in the residential red zones (the most affected by the earthquakes) [see the report Monitoring Human Rights in the Canterbury Earthquake Recovery 2016, prepared by the New Zealand Human Rights Commission]. The earthquakes also caused extensive damage to the city's water infrastructure; the rebuilding costs were estimated in NZ\$3.3 billion in mid-2013 (Building quake-resilient underground utilities, Water New Zealand, 2017) However, a significant part of the city's infrastructure has been replaced and upgraded since 2011 (Christchurch Economic Infrastructure Situation Report, Christchurch NZ, July 2017. Retrieved from: www.cdc.org.nz)</p>	
Indicators from the UN–Habitat City Prosperity Index that might support your considerations:	
2.3.1. Proportion of open space in public use, defined as the average share of the built-up area of cities that is open space for public use for all—by sex, age and persons with disabilities.	
2.1.2. Land-use mix, defined as the diversity of land-use per square kilometre, within a city or urban area (balanced through complementary uses and activities within a local area).	
2.2.2. Population density, defined as the total city population divided by the total urban area in square kilometres.	
2.3.2. Accessibility to open public space, defined as the proportion of city population (or total urban area) living (or located) less than 400 metres away from the open public spaces. Public space includes parks, squares, recreational green areas, and recreational facilities (not streets).	

²⁴ Here 'natural spaces' means vegetated spaces—either original habitat or created natural settings such as parks.

²⁵ Here 'appropriate materials' might be taken to mean such things as materials that appropriate to the climate or materials that are recycled, locally sourced, or sustainably produced.

5. Built-Form and Mobility

General Question: Does the form of the urban area and its transport system support sustainable living?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch's urban transport system was judged as highly unsatisfactory (3), with the high dependence on cars being considered critical (1) and the lack of accessible mass transit and accessibility of amenities in the urban area through different transport modes being seen as bad (2).

Overall 3	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The spread of the urban area—with particular concern in relation to urban sprawl.	4
2. The access of people to the different social amenities across the urban area through overlapping transport modes.	2
3. The accessibility of mass-transit systems in the urban area—particularly as extending to the urban fringes and non-formal zones. ²⁶	2
4. The degree of dependence on cars.	1
5. The level of support for using non-motorized transport such as bicycles and walking through provision of safe walking paths, protected bike-lane networks, low-speed residential zones, etc.	6
6. The implementation of energy-use reduction practices for air and sea transport.	3
7. The translation of transport monitoring into quality-improvement strategies.	3
Annotations explaining the scores:	
<p><i>Transport modes:</i> Private cars are the prevailing mode of transport in Christchurch. On average, nearly three out of every four trips by residents are made by car: two as driver (47 per cent) and one as passenger (25 per cent). In addition, cycling and public transport represent only a small proportion of transport modes (only 2 per cent and 3 per cent respectively) (see Canterbury Regional Report. Health Impact Assessment 2011). Christchurch has the highest car-mode share of the main cities in New Zealand and it is estimated that private vehicle trips are growing at a rate of 1 per cent a year, and freight trips at double this rate (Future Public Transport in Christchurch, Greater Christchurch Public Transport Committee, 2017, p. 31). A recent report identified two main problems of Christchurch's public transport. First, the use of public transport in Greater Christchurch has declined significantly in recent years. It is estimated that the number of users across the urban area is 20 per cent lower than before the earthquakes. Second, studies suggest that public transport travel times and reliability in Christchurch are a key problem that limits the use and effectiveness of buses in the urban area. In summary, the report suggests that '[l]and use associated with population and business change is not adequately aligned with transport infrastructure in Christchurch ... this results in congestion on key corridors that experience peak time delays [and] it also reinforces private vehicle use" (Future Public Transport in Christchurch, Greater Christchurch Public Transport Committee, 2017, p. 31).</p>	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
2.1.1. Street Connectivity	
2.1.1a City-street intersection-density, defined as the number of street intersections per one square kilometre of land.	
2.1.1b Street density is defined as the number of kilometres of urban streets per square kilometre of land.	
2.1.1c Proportion of total area of urban surface allocated to streets.	
2.2.1. Land-use efficiency (as opposed to urban sprawl), defined as the ratio of the land-consumption rate to the population growth rate.	
4.3.1. Proportion of the population that has convenient access to public transport disaggregated by age group, sex, and persons with disabilities.	

²⁶ Here 'mass-transit systems' should be taken to include both public and private transport systems such rail and bus networks.

6. Embodiment and Sustenance

General Question: How sustainable is the urban area in supporting the physical health of people?²⁷

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch's urban area was evaluated as highly satisfactory (7) with regard to the physical health of its inhabitants, with urban street hygiene being considered exceptional (9). However, the level of physical activity residents engaged in regularly was seen as basic (5).

Overall 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The general physical health of residents.	6
2. The rate of infant mortality in the urban area.	8
3. The level of physical exercise enacted regularly by all people in the urban area.	5
4. The hygiene of urban streets for all people.	9
5. The nutrition of food generally eaten by residents.	6
6. The level of urban agriculture in the urban area, including in people's home sites.	6
7. The translation of physical health monitoring into quality-improvement strategies.	7
Annotations explaining the scores:	
<p><i>Physical health:</i> The proportion of Canterbury respondents reporting excellent, very good, or good in the 2014/15 New Zealand Health Survey (NZHS) was 87.5 per cent compared to 90.8 per cent in 2006/07 and 2013/14. These results are similar to the averages for New Zealand health surveys. However, the total numbers of acute medical admissions have been increasing over time, with a seasonal pattern of increases in the winter months. Previous research has found that there was a statistically significant fall in the seasonally adjusted admission-rate after the February 2011 earthquake from 6.59/1000 people to 5.83/1000 people (a lower age-standardised acute medical admission rate than nationally) (Canterbury Wellbeing Index 2016).</p> <p><i>Smoking and obesity:</i> The prevalence of tobacco smoking is slowly declining in Canterbury. Results from the NZHS show that the rate of adult smoking in the Canterbury region decreased from 18.4 per cent in 2006/07 to 13.1 per cent in 2014/15 (lower than the 16.6 per cent national average). The NZHS also reports obesity data, and these indicate that the prevalence of obesity in Canterbury decreased from 30.7 per cent in 2012/13 to 25.7 per cent in 2014/15 (30.7 per cent nationally), slightly higher than the 2006/07 prevalence of 24.3 per cent (Canterbury Wellbeing Index 2016).</p>	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
4.3.2. Death rate due to road traffic injuries.	
5.1.1. Life expectancy at birth.	
5.1.3. Under-five mortality, defined as the probability of a child born in a specific year or period dying before reaching the age of five, subject to age-specific mortality rates of that period.	

²⁷ Here in the ecological domain the emphasis is on physical health. Mental health is considered in the cultural domain.

7. Emission and Waste

General Question: How sustainable is the way that the urban area deals with emissions and waste?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

The sustainability of how Christchurch deals with emissions and waste was deemed to be at a basic level (5), with hard-waste recycling seen as poor (2) while green-waste recycling was considered satisfactory (6).

Overall		5
Particular Questions		
<i>How sustainable are the following aspects of the urban area?</i>		
1. The level of carbon emissions in the urban area.		5
2. The amount of hard waste produced by the urban area.		4
3. The treatment of sewerage, including the subsequent dispersal of the treated products.		5
4. The storm-water drainage system in the urban area.		5
5. The composting of household green and vegetable waste.		6
6. The level of hard-waste recycling in the urban area.		2
7. The translation of emissions-and-waste monitoring into quality-improvement strategies.		6
Annotations explaining the scores:		
<p><i>Storm-water drainage systems:</i> In 2012, the Christchurch City Council initiated the Land Drainage Recovery Program. The aim of the program was to identify the effects of the 2010/2011 earthquakes on the city's drainage systems. A report published in 2012 estimated that 78 per cent of open channels were in 'Very Good', 'Good' or 'Moderate' condition. A Small proportion was considered 'Very Poor' (0.2 per cent). Analysis of the data suggests that higher severity faults were more often related to earthquake damage rather than business-as-usual (Open Water Condition Assessment Report, 2012).</p> <p><i>Composting of organic waste:</i> More could be done to improve the management of green waste. Christchurch City Council provides weekly kerbside collection for organic material (food and garden waste). However, an audit study of red bins (landfill) in 2011-2012 showed that around one-third of the bin's content could be composted instead of being allocated in landfill (Organic Material Collection and Composting Plan 2015-2025, p. 2).</p> <p><i>Hard-waste produced by the city:</i> In 2011/2012, the Christchurch urban-region generated over 200,000 tonnes of waste, which represents approximately 524 kilograms per person per annum. The largest components of the waste generated were timber (20 per cent), organics (19 per cent), rubble (12 per cent) and plastic (11 per cent). The total tonnage of waste produced by Christchurch city was 20 per cent less in 2012 than in 2008. This decrease has been associated the effects of the 2008 global financial crisis, which resulted in a decrease of 15-20 per cent at most landfills in New Zealand (<i>Waste Management and Minimisation Plan 2013</i>, Christchurch City Council, pp. .8-9).</p>		
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:		
6.2.2. Solid-waste collection and disposal, defined as the proportion of urban solid waste that is regularly collected and with adequate final discharge, out of total urban solid waste generated by cities.		



Christchurch, a reconstruction worker stripping a retail outlet for renovation.

Economics

1. Production and Resourcing

General Question: How sustainable are the broad patterns of production and resource-access in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Production and resource-access in Christchurch was evaluated as generally satisfactory (6), with a vibrant arts community (8) but unsatisfactory (4) translation of the monitoring of production practices into quality-improvement strategies.

Overall 6	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The general prosperity of the urban area.	6
2. The local manufacturing base of the urban area for producing basic goods.	5
3. The access in the urban area to necessary primary resources.	7
4. The arts communities in the urban area. ²⁸	8
5. The level of design expertise in the urban area. ²⁹	6
6. The labour resources of the urban area. ³⁰	5
7. The translation of the monitoring production practices into quality-improvement strategies.	4
Annotations explaining the scores:	
<p><i>General prosperity:</i> Although the city was heavily impacted by the earthquakes, there is a general perception that Christchurch's economy is healthy and stable. In 2016, the GDP per capita for the Canterbury region was NZ\$55,727, slightly higher than the national average (NZ\$54,178). According to figures prepared by the Ministry of Business, Innovation and Employment, the average household income in 2016 was NZ\$93,961, while the unemployment rate was 3 per cent (significantly lower than the national average of 5 per cent) (MBIE 2016 Regional Economic Activity Report, retrieved from http://www.mbie.govt.nz). According to a 2017 report elaborated by the OECD, the rebuild of the Canterbury region has supported steady GDP growth since 2012, with a peak in November 2016 (OECD Economic Survey 2017, p. 20). Between 2011 and 2016 Canterbury's regional GDP increased by 31.9 per cent, well above the national average in the same period (23.8 per cent) (NZ Stats 2017. Retrieved from https://www.stats.govt.nz/topics/economy)</p> <p><i>Access to primary resources:</i> The region has access to local natural resources such as water, coal, electricity and products from the agricultural sector. Around 70 per cent of New Zealand's fresh water resource is in the Canterbury Region. Canterbury also contributes a significant percentage of the nation's renewable hydro-electricity generation, and it has around 20 per cent of New Zealand's farmland (Energy in New Zealand 2017, Ministry of Business, Innovation & Employment; Dynes et al, 2010).</p> <p><i>Design expertise and labour resources:</i> The city has solid product-design capabilities and there is strong investment in the ICT/technology sector. There is a shortage of skilled labour in some technical areas, for example electrical engineering. There is also a shortage of skilled trades (as illustrated by the low unemployment-rate in these occupations), in part due to high demand in the context of Canterbury's rebuild after the earthquakes (See the 2017 Canterbury Skill Shortage list prepared by the Ministry of Business, Innovation and Employment http://skillsshortages.immigration.govt.nz/canterbury-skill-shortage-list.pdf).</p>	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
3.1.1. City Product (GDP) per capita (considering purchasing power parity), defined as the sum of the gross value added (wages plus business surplus plus taxes less imports), or the total final demand (consumption plus investment plus exports), relative to the city's total population.	

²⁸ 'Arts communities' might be taken to include different artists from musicians and painters to craft workers.

²⁹ 'Design expertise' might be taken to include architects and planners to graphic designers and jewelry designers, etc.

³⁰ 'Labour' includes both manual and intellectual labour resources from artisans and physical workers to doctors and engineers.

2. Exchange and Transfer

General Question: How sustainable is the current movement of money, goods and services into and through the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Unsatisfactorily high debt levels in Christchurch (4) are balanced by good opportunities to participate in ethical trade and good availability of basic goods (8), resulting in overall satisfactory (6) movement of money, goods, and services in the Christchurch urban region.

Overall 6	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The opportunity to participate in ethical trade—for example, locally through community gardens and produce-markets, or globally through fair-trade networks.	8
2. The availability of basic goods, including through non-commercial and low-cost outlets.	8
3. The fair redistribution of financial resources through processes such as the tax system.	5
4. The resilience of external trade relations, including through bilateral exchange agreements between cities.	6
5. The provision of material aid and social support to people in need beyond the immediate the urban area.	6
6. The levels of debt carried by different sectors of the urban area—both public and private.	4
7. The translation of monitoring of accounting practices into quality-improvement strategies.	5
Annotations explaining the scores:	
<p><i>Fair-trade networks:</i> There are several fair-trade initiatives in the city, including local farmers' markets, fair trade shops and brands. There are also good labelling regulations in place. According to the 2017 Ethical Fashion Report, published by Tearfund New Zealand, the transparency of the fashion industry in New Zealand has improved in recent years (higher number of companies tracing suppliers' employment agreements, raw materials and inputs). (www.tearfund.org.nz).</p> <p><i>External trade relations:</i> The 2010 and 2011 earthquakes significantly affected the city's external trade relations. However, there is a perception that the situation is currently changing and the city is developing good resilience as a result of these events.</p> <p><i>Redistribution:</i> Participants expressed concerns about the poorer areas of the city and the high levels of deprivation, in particular regarding housing availability. This is consistent with available data. According to the 2016 Canterbury Wellbeing Index, after the earthquakes 'housing pressures remain a key stressor with some households still living in damaged or temporary accommodation, or continuing to negotiate settlement of their insurance claims' (p. 6). However, recent data suggests that house affordability is improving as real estate prices for both rental and sales are decreasing (2016 Canterbury Wellbeing Index).</p> <p><i>Debt levels:</i> Levels of debt are viewed as high — both personal and organizational. The city incurred significant debt as a result of the earthquakes. The high levels of financial debt after the earthquakes led several building companies to the bankruptcy ('Canterbury's Bloody Problem: Hundreds of Building-related Firms Failing', Stuff, 29 August 2016).</p> <p><i>Accounting practices:</i> practices have been changing in Canterbury, particularly in the context of the region's rebuild. At a national level, New Zealand has a solid reputation in terms of institutional and financial transparency. The 2017 Finance Integrity Assessment-FISA, a pilot study undertaken by Transparency International, celebrates New Zealand's commitment with financial and banking transparency, highlighting in particular a major reform launched as a response to the 2008 global financial crisis.</p>	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
3.1.2. Growth rate per employed person, defined as the annual city growth rate of real GDP per employed person.	

3. Accounting and Regulation

General Question: How robust are the various accounting and regulatory frameworks in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch's accounting and regulatory frameworks were judged to be 'Highly Satisfactory' (7), with mostly 'Good' (8) marks across its subdomains and despite average scores for land-use regulation.

Overall 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The transparency of public spending.	8
2. The robustness of financial auditing systems that apply in the urban area. ³¹	8
3. The appropriateness of regulation of goods and services. ³²	6
4. The application of consistent land-use regulation.	5
5. The appropriate regulation of financial systems that affect the urban area.	8
6. The appropriate regulation of labour practices, including health-and-safety considerations.	8
7. The translation of the monitoring of regulative practices into quality-improvement strategies.	6
Annotations explaining the scores:	
Christchurch's accounting and regulatory frameworks were judged to be Highly Satisfactory (7), with mostly Good (8) marks across its subdomains and despite average scores for land-use regulation.	
<i>Transparency of public spending and the financial system:</i> New Zealand has a reputation of institutional and financial transparency. In 2017, Transparency International conducted in New Zealand the first ever Finance Integrity Assessment-FISA, which includes a consultation process with multiple public and private stakeholders. According to the report, after the global financial crisis, New Zealand's 'financial sector as a whole (including banks, finance companies, financial advisers, product providers and others) has undertaken one of the most comprehensive changes in regulatory regime any sector has ever been subject to' (p. 4). The final results of the study will be published later in 2018.	
<i>Land-use regulation:</i> Over-regulation and inconsistency is seen as an issue: Some commentators describe it as too restrictive, especially for small businesses.	
<i>Work health and safety regulations:</i> There are good company cultures with respect to health and safety, although it is recognised that NZ has a poor overall H&S record with respect to deaths at work (two times higher per head of population than Australia; five times higher than UK, mainly due to higher percentage of primary industry in NZ, which is riskier). This is perhaps not so relevant to Christchurch given the limited primary industry such as forestry close to the city. According to a study conducted by WorkSafe New Zealand in the context of Canterbury's rebuild, the region's construction companies show higher levels of awareness of health and safety obligations than construction firms in the rest of New Zealand. Similarly, industry workers from Canterbury were more aware of their rights and obligations than workers in other parts of the country. Importantly, in the period covered by the report (January 2013 to October 2017), there were zero fatalities on a Canterbury construction site (Rebuilding Canterbury, health and safety, WorkSafe, 2017).	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
3.3.1. City-based revenue collection (as percentage of the total city revenue). This concerns the capacity of local government to manage and collect its resources.	

³¹ Here consideration of the question should take in both public and private auditing systems.

³² Here, as elsewhere, the question of 'appropriateness' should be judged in relation to general public outcomes, including the poor or vulnerable, rather than outcomes pertaining to any one sectional interest.

4. Consumption and Use

General Question: How sustainable are the current consumption patterns of the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch's consumption patterns were deemed as satisfactory (6), with low scores for alternative movements and appropriate strategies (4) and good availability of basic utilities (8).

Overall 6	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The re-use of goods, including through personal exchange and second-hand outlets.	4
2. The development of responses to food security and vulnerability to seasonal shortages of food.	6
3. The ongoing availability to all of goods and services deemed necessary for good living.	7
4. The ongoing availability to all basic utilities—such as water, electricity, and gas.	8
5. The capacity of local people to respond to peak-oil issues, including rising costs.	7
6. The accuracy of advertising circulated locally in providing information about consumption goods.	7
7. The translation of the monitoring of consumption into strategies for enhancing good consumption.	4
Annotations explaining the scores:	
<p><i>Re-use of goods:</i> A report on waste generation published in 2012 by the World Bank showed that New Zealand produced 3.68kg of waste per capita per day, which makes the nation the largest per capita producer of waste among OECD countries and the eighth largest per capita producer in the world (What a Waste, World Bank, 2012, p. 82). There is a strong consumerist culture in the city (large malls, etc.) and although there is also a fair number of second-hand outlets, it is a tiny minority of the population who use these regularly.</p> <p><i>Food security:</i> Food security is not a day-to-day problem but a significant percentage of food comes from the Region and the supply can be seriously disrupted through a disaster such as earthquakes. This situation is not perceived as an issue by the relevant authorities.</p> <p><i>Availability of goods and services:</i> Overall there is ongoing availability of goods and services. However, participants observed that there is much poverty in the city and that many people struggle to meet their basic needs.</p> <p><i>Basic utilities:</i> Although there is good provision of basic utilities in the region, local experts expressed concerns on how climate change may affect the availability of water in the coming decades. According to climate change projections made by Canterbury's Ministry for the Environment, droughts are likely to become more frequent and more extreme in the future. In addition, higher temperatures and less rainfall will increase the pressure on water resources, particularly in North Canterbury (Ministry for the Environment. Retrieved from http://www.mfe.govt.nz/climate-change). The earthquakes caused extensive damage to the city's water infrastructure; the rebuilding costs were estimated in NZ\$3.3 billion (Building Quake-Resilient Underground Utilities, Water New Zealand, 2017).</p> <p><i>Advertising:</i> Good regulation in place for advertising and packaging standards. Food sold in New Zealand must be labelled according to the Food Standard Code, established by Food Standards Australia New Zealand-FANZ (details the ingredient list, nutrition information, date marking, distributor or manufacturer in New Zealand, etc.).</p> <p><i>Monitoring of consumption:</i> There continues to be a culture of high consumption, equating this with wealth and well-being. There is no public monitoring of consumption patterns, except through company-based financial reporting. There are no initiatives such as taxation on plastic bags, deposit systems on bottles, etc.</p>	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
3.3.2. Capital expenditure per capita, defined as the investment in city assets such as roads, education, health, power, housing etc., as a ratio of total population.	

5. Labour and Welfare

General Question: How sustainable are the conditions of work across the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

The sustainability of Christchurch's work conditions was judged to be highly satisfactory (7), with above average marks across all subdomains.

Overall 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The range of livelihoods available in the area to those with appropriate skills.	8
2. The possibility for all of meaningful productive vocations.	8
3. The relative equity of access to secure employment in the area across differences of gender, age and ethnicity.	6
4. The capacity of the labour force to work productively.	6
5. The safety of workers.	7
6. The comprehensiveness of general welfare support processes across the urban area. ³³	7
7. The translation of the monitoring labour practices into strategies for enhancing good working conditions.	8
Annotations explaining the scores:	
<p>Range of livelihoods and vocations: The post-earthquake rebuild fostered the creation of new jobs. In 2016, the unemployment rate of the region was 3 per cent, while the national average was 5 per cent (NZ Stats, 2018). Canterbury is prominent in energy generation and food production, including meat, seafood, wine and dairy products (New Zealand Trade and Enterprise, 2017. Retrieved from: https://www.nzte.govt.nz/regional/australia-pacific). Rebuilding after earthquake fostered the creation of new trade jobs and business opportunities in the region (MBIE 2016 Regional Economic Activity Report, retrieved from http://www.mbie.govt.nz).</p> <p>Gender and ethnicity in work: A recent government report on women rights shows that the 2010 and 2011 earthquakes negatively affected women's employment in Canterbury (although the demand for trade people increased in the context of the rebuild) (New Zealand's Eighth Periodic Report on its implementation of the United Nations Convention on the Elimination of All Forms of Discrimination against Women, 2016, p.26) At the national level, the report indicates that, despite an increase of qualifications, women are over represented in minimum wage jobs. In 2014, more than two thirds of minimum wage workers over 25 were women. The report also indicates that unemployment rates for Māori (13.9 per cent) and Pacific (13 per cent) women were higher than those of European (4.7 per cent) and Asian (7.7 per cent) women as of March 2016. The unemployment rates are all higher than for men in the same groups (p.26).</p> <p>Work productivity: Work force seen as hard working but some people not motivated by low minimum wage or the type of low-skilled work on offer. Still a tendency to have people rather than machines undertake work in the city: could lead to productivity issues.</p> <p>The Canterbury Region performed well in a recent assessment regarding health and safety awareness in the context of the rebuild (see Rebuilding Canterbury, health and safety, WorkSafe, 2017).</p> <p>Welfare support: Although there are welfare programs in place (such as Work and Income New Zealand-WINZ), there is a perception that some areas need more attention and resources. In particular, participants suggested that the earthquakes have had enduring effects in the mental health of many local residents and that more should be done on this issue (see Wellbeing and Health section on this issue)</p> <p>Policy implementation: good translation of available data into strategies for the improvement of working conditions, particularly in the area of health and safety. Increasing resources focused on monitoring and enforcing existing regulations.</p>	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
3.2.1. Employment to population ratio, defined as the proportion of a country's working age population that is employed.	
3.2.1p Unemployment rate, by sex, age and persons with disabilities.	
3.2.2. Proportion of informal employment in non-agriculture employment, by sex.	

³³ 'Welfare' is broadly defined here to include, on the one hand, social security, pensions, and in-kind state support to individuals or families, and, on the other hand, support that comes from social networks, philanthropy and personal relations.

3.2.3. Manufacturing employment as a proportion of total employment.

3.2.3p Jobs in the manufacturing of local building materials. The term 'locally available building materials' is used to refer to materials of which the entire lifecycle (including all steps of the production chain: 1. extraction of raw materials, 2. manufacturing into building products, 3. sale and 4. use of building products, 5. recycling/end-of-life) takes place within the same region. (repeat)

6. Technology and Infrastructure

General Question: To what extent is basic infrastructure in urban area appropriate and supportive of a broad cross-section of needs?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Basic infrastructure is seen as highly satisfactory (7) across a broad range of sectors, but the adoption of new transport technologies (hybrid vehicles, intelligent systems, etc.) could be improved as it is currently considered unsatisfactory (4).

Overall 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The appropriateness of technologies and public infrastructure used to support the ongoing development of the urban area.	7
2. The robustness of information storage systems available to people in the urban area.	8
3. The adoption of new technologies in transport such as hybrid vehicles and intelligent transport systems.	4
4. The quality of the building stock, both commercial and housing, in the urban area?	7
5. The resourcing of the education system with appropriate technologies and infrastructure readily available to locals.	8
6. The resourcing of the health system with appropriate technologies and infrastructure readily available to locals.	8
7. The translation of the monitoring of technology-use into strategies for enhancing technological application.	8
Annotations explaining the scores:	
During the initial discussion, the quality of our infrastructure was seen as one of our strengths, so it initially surprised people that we ended up scoring the section lower than our initial guess.	
<i>Urban Sprawl and transport:</i> participants expressed some concerns about the transport infrastructure to support ongoing spread-out population, particularly post-earthquake, when many people moved to satellite towns such as Rolleston and Rangiora. Travel patterns have changed as a result of the relocation of businesses, homes and services, which created pressure points within the existing transport network (Christchurch Transport Plan 2012-2042, Christchurch City Council, 2012, p. 10).	
<i>Information storage systems:</i> There are five data centre providers in the city (www.datacenter.com). However, participants observed that, as a result of the earthquakes, many companies now store data outside Christchurch.	
<i>Technology and Transport:</i> Participants considered that the city lacks a well implemented transport strategy: personal vehicles as prevailing mode of transport; there are rail lines in place but only a single track and needs major investment; lack of light rail network to satellite towns. The City Council is promoting the adoption of electric vehicles and has recently been recognised as “the most electric vehicle friendly city in New Zealand” (https://ccc.govt.nz/news-and-events/newsline/show/2007).	
<i>Quality of the building stock:</i> The earthquake resulted in much improvement of the building stock; however, opportunities to make buildings more sustainable have been missed in many places.	
<i>Education infrastructure and technology:</i> Schools and tertiary institutes have been upgraded as a result of the quakes. There are three tertiaries in the area, with much redevelopment and being well-kitted out: there are some quite spectacular new buildings. Ara Institute is now one of the best in the country.	
<i>Health infrastructure and technology:</i> There is access to some of the best medical facilities in the country, partly because of what has always been here and partly because of post-quake rebuild. There is a good public system with new hospital buildings and a new health precinct.	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
3.3.2p. The amount of investment on infrastructure as a proportion of the total urban investment. Infrastructure is defined as physical structures and essential services that connect society and facilitate its orderly operation.	

7. Wealth and Distribution

General Question: Is the wealth of the urban area sustainable; and is it distributed in way that benefits all?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

The sustainability of Christchurch's wealth and its fair distribution is deemed to be satisfactory (6), but the translation of wealth accumulation into social benefits for all is considered unsatisfactory (4). Despite the destruction of social wealth during the earthquakes, significant efforts have resulted in restoration and protection of heritage buildings (score of 8).

Overall 6	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The public use of wealth of the urban area for maximum social benefit for all.	7
2. The maintenance of the inherited social wealth of the urban area—for example, the maintenance of heritage buildings or public spaces for maximum social benefit.	8
3. The relative equity of wage levels for different groups—as categorized by job, but also across difference of gender, age and ethnicity, etc.	5
4. The affordability of local housing for all.	6
5. The relative equity of accumulated wealth of the residents of the urban area.	7
6. The effectiveness of processes for redistributing wealth in the urban area.	5
7. The translation of the monitoring of wealth accumulation into strategies for enhancing the social benefits for all.	4
Annotations explaining the scores:	
<i>Public wealth and general wellbeing:</i> There are strong planning criteria and much consideration about facilities that go into the various parts of the city. Overall, good provision of facilities such as recreation areas, parks, etc., but great disparity between some areas of the city.	
<i>Inherited social wealth:</i> Much has been lost during the earthquake but there have been some great efforts to save some buildings (for example the Art Centre). On-going debate over the cathedral. There are strong heritage agencies in the city and also legislation in place to protect buildings.	
<i>Equity of wage levels:</i> Average wage in the city is quite low and there is a lot of poverty. According to the New Zealand Human Rights Commission, “pay differences exist in both the broader labour market and the public service. Men are paid more than women, European New Zealanders are paid more than other ethnic groups, and disabled people have lower incomes than non-disabled people” (Tracking Equality at Work. Key findings for 2016, New Zealand Human Rights Commission, 2017, p. 2).	
<i>Housing:</i> Based on average wage and average house price, participants considered that housing in Christchurch is affordable. The proportion of a wage required to service a mortgage over 20 years is the lowest in the country. However, some people struggle to access affordable housing.	
<i>Wealth and equity:</i> High proportion of home ownership.	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
4.1.1 The proportion of people living in households lacking at least one of the following five conditions: having access to improved water; having access to improved sanitation facilities; having sufficient living area (not be overcrowded); having durable housing; and having security of tenure.	
4.1.2 Housing affordability, defined as households with housing costs 30 per cent or more of gross income expressed as a percentage of all households in a city.	
5.2.1 Poverty rate, defined as the proportion of population below the international poverty line of \$1.25 per day (or necessary to meet basic needs), by sex, age, employment status and geographical location (urban/rural).	
5.2.2 Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population.	
5.2.2p GINI coefficient. A Gini coefficient of zero expresses perfect equality, where all values are the same i.e. where everyone has the same income. A Gini coefficient of one (or 100 per cent) expresses maximal inequality among values i.e. a city in which one person has all the income.	



Juan Salazar in a meeting at the Christchurch, Antarctic Office.

Politics

1. Organization and Governance

General Question: How well does the current system of governance function to maximize benefits for all?³⁴

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch's current system of governance is deemed to be basic (5) in terms of its ability to maximise benefits for all, with a highly satisfactory authority across governance levels to carry out policy (7) but an unsatisfactory management of urban growth by the government (4).

Overall 5	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The political legitimacy of the various levels of government relevant to the urban area.	6
2. The capacity of the leaders of the various kinds of governance relevant to the urban area.	5
3. The visions projected by the relevant levels of government for positively managing the form of the urban region—for example, in relation to managing urban growth.	4
4. The capacity of the administrative staff in the various levels of bureaucracy.	5
5. The authority of the various levels of governance to carry out policy.	7
6. The transparency of decision-making processes.	6
7. The translation of the monitoring of administrative practices into strategies for enhancing the quality of governance.	5
Annotations explaining the scores:	
<i>Political legitimacy:</i> In the Canterbury Region, the 2010 and 2011 earthquakes seem to have negatively affected the image of the local government. Six-monthly surveys conducted between 2012 and 2016 in the Canterbury region showed lack of confidence in the government's responses to the 2010–2011 earthquakes, as well as dissatisfaction around the lack of opportunities influence decision-making processes (See Civil Participation, Canterbury Wellbeing Index 2016).	
<i>Management and governance of the urban region:</i> A recent audit report on the work done by the Canterbury Earthquake Recovery Authority–CERA, indicates that the Agency lacked a clearly defined set of priorities and performance framework, which negatively affected its efficiency. The assessment also points to deficiencies in inter-agency coordination and in the relationship with non-governmental stakeholders (Canterbury Earthquake Recovery Authority: assessment of its effectiveness and efficiency, Controller and Auditor General, 2017)	
Indicators from the UN–Habitat City Prosperity Index that might support your considerations:	
1.1.1. Level of development and implementation of a national urban policy or regional development plans that (a) respond to population dynamics, (b) ensure balanced territorial development, and (c) increase local fiscal space.	

2. Law and Justice

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

The dominant legal system in Christchurch was deemed to be highly satisfactory (7), with consistently above-average levels across all subdomains.

Overall 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The protection of human rights in the urban area.	8

³⁴ Here the 'current system of governance' includes nationally, regionally, municipally and locally.

³⁵ Here the 'dominant legal system' includes the national, municipal, and local levels of law, and their intersection.

2. The civil order of the urban area.	8
3. The responsiveness of local residents to legal requirements.	8
4. The treatment of all locals as equal before the law—this includes the specified articulation of complementary systems of justice such as customary or traditional law.	6
5. The fairness and circumspection of the dominant legal system.	6
6. The appropriateness of legal judgements in relation to various levels of penalty and punishment.	6
7. The translation of the monitoring of legal practices into strategies for enhancing the quality of legal administration.	8
Annotations explaining the scores:	
<i>Legal system:</i> According to Transparency International, New Zealand’s judiciary system ‘meets high standards of independence, integrity and accountability’. Nevertheless, the NGO formulated recommendations and potential reforms, including a more transparent process of appointment of High Court judges and the need to allocate more resources to strengthen the judiciary’s independence (New Zealand National Integrity Assessment 2013, Transparency International, p. 107).	
<i>Human rights:</i> The 2010 and 2011 earthquakes created significant challenges to some of the most fundamental human rights: the right to adequate housing, the rights to health, the right to property, the right to education as well as civil and democratic rights (for example, access to information and participation in decision making). While the government invested significant resources in addressing these challenges, a report elaborated by the NZ Human Rights Commission highlighted some aspects in which post-disaster policies affected the residents’ human rights. In particular, the Commission points out that many residents felt that there were not enough opportunities to influence and/or participate in decision-making; in addition, the report suggests that the red-zoning policy implemented by the government affected the property rights of many residents (Staying in the Red Zones. Monitoring Human Rights in the Canterbury earthquake Recovery, New Zealand Human Rights Commission, 2015).	
<i>Ethnicity and the legal system:</i> While Māori New Zealanders make up the 14 per cent of the country’s total population, they represent 45 per cent of all arrests, 38 per cent of all convictions and more than 50 per cent of all prison inmates. Conversely, Māori are under-represented in NZ’s judiciary system (10 per cent) and Police Force (11.2 per cent) (New Zealand’s National Plan of Action, New Zealand Human Rights Commission, 2018).	
Indicators from the UN–Habitat City Prosperity Index that might support your considerations:	
5.4.2. Theft rate, defined as the number of reported thefts affecting people, places of residence and commerce; and of vehicles and motorcycles, expressed in thefts per 100,000 inhabitants.	
5.4.1. Homicide rate, defined as number of victims of intentional homicide per 100,000 population, by sex and age.	

3. Communication and Critique

General Question: How sustainable is social communication access in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Access to and quality of social communication in Christchurch was evaluated to be highly satisfactory (7), with consistently above-average marks throughout all subdomains.

<i>Overall</i> 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The level of positive freedom for political expression in the urban area.	8
2. The range of newspapers, broadcasters and public communications systems circulating information that is relevant to people living in the urban area.	7
3. The proportion of households with open access to mediated communications—including radio, television, internet and other social communications.	8
4. The quality of public political analysis—both mainstream and alternative—easily accessible in the urban area, and with content pertaining to local issues.	6
5. The openness of the urban region to non-violent political protest being enacted and heard.	8
6. The level of respect for privacy by public and private information gatherers.	7
7. The translation of the monitoring of media practices into strategies for enhancing the quality of media communication.	6

Annotations explaining the scores:

Christchurch has an open democratic civil society, however it faces all the challenges of communications surveillance, monopoly press and dominant information platforms prevalent globally.

Indicators from the UN-Habitat City Prosperity Index that might support your considerations:

4.2.2. Proportion of individuals using the internet.

4. Representation and Negotiation

General Question: How well are citizens of the urban area represented politically?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Political representation for Christchurch residents was deemed to be satisfactory (6), with room for improvement with regard to active possibilities of civil negotiation and contestation of political power (both rated as basic only). Conversely, the participation of residents in NGOs and advocacy groups was considered to be good (8).

<i>Overall</i> 6	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The active membership of residents in non-governmental organizations and advocacy groups—trades unions, professional associations, clubs, religious affiliations, etc.	8
2. The active participation of local people in the political processes of the urban area.	6
3. The power of local people to affect political decision-making processes relevant to the urban area.	6
4. The availability of municipal representatives for consultation with residents.	7
5. The active possibility of civil negotiation between groups with different interests—such unions and business.	5
6. The active and legitimate contestation of political power and office.	5
7. The translation of the monitoring citizen's engagement into strategies for enhancing the quality of public participation.	6
Annotations explaining the scores:	
<p><i>Electoral turnout and engagement:</i> The 2010 and 2011 earthquakes affected electoral turnout in the 2010 and 2011 elections. However, in the 2014 election voter turnout in Christchurch returned to levels very similar to those in 2008, with the exception of Christchurch East, Wigram, and Ilam electorates (Canterbury Wellbeing Index 2016). In recognition that the earthquakes had caused significant infrastructure and communications obstacles, the regional Electoral Commission actively promoted advance voting in Christchurch in 2010 and 2011. Surveys of voter and non-voter experiences showed that 80 per cent of Christchurch residents were aware of advance voting options, in contrast to 63 per cent of residents nationally. Advance voting in the most damaged electorates of Christchurch East and Christchurch Central (19 per cent in each case) was higher than the national average of 15 per cent (Civil Participation, Canterbury Wellbeing Index 2016, p. 198).</p>	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
1.2.2. Level of participation of local government, NGO and civil society in urban planning and decision-making.	

5. Security and Concord

General Question: How secure and peaceful is the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch was consistently evaluated as good (8) in terms of safety and peacefulness, with the exception of domestic violence and street conflict (score of 5).

Overall 8	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The level of personal security in relation to human security issues—such as food security, natural disaster, economic crisis or military threat.	8
2. The physical safety of work places.	8
3. The level of personal security in relation to domestic violence or day-to-day street-conflict.	5
4. The provision of shelter for residents of the urban area without homes or those leaving behind difficult circumstances such as domestic violence.	8
5. The provision of active support for immigrants from outside the urban area escaping conflict, persecution or poverty.	8
6. The provision of affordable insurance processes supported by formal guarantees.	8
7. The translation of the monitoring of security threats into strategies for enhancing the quality of personal security for all.	8
Annotations explaining the scores:	
<i>Domestic violence:</i> Although overall crime has decreased in post-earthquake Christchurch, reported cases of domestic violence have significantly increased. According to a recent study, explanations for the reported increase in domestic violence in post-disaster contexts are “related to individual level stressors experienced by residents in a post-disaster setting boiling over into violent domestic confrontations” (The impact of the Canterbury earthquake on the temporal and spatial pattern of crime, Breetzke, King & Fabris-Rotelli, 2016, p. 136–37).	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
6.1.1. Adoption and implementation of local disaster risk-reduction strategies (in line with the Sendai framework for Disaster Risk Reduction 2015–2030).	
6.1.2. Population affected by hazardous events, defined as the number of deaths, missing persons and persons affected by disaster per 100,000 people in a city.	
5.4.3. Proportion of women (15 years and older) subjected to physical or sexual harassment in public spaces, in the last 12 months, by perpetrator and place of occurrence. (repeat)	

6. Dialogue and Reconciliation

General Question: Is meaningful dialogue possible between groups with significant political difference in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

The ability to have meaningful dialogue between opposing parties in Christchurch was deemed as highly satisfactory (7), with high levels of social trust (9) despite a perceived lack of appropriate strategies and processes for dealing with conflict or tension (score of 5).

Overall 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The recognition of differences of identity—including, in particular, recognition of the original inhabitants of the urban region.	8
2. The existence of active processes for negotiating different understandings of past events and histories of conflict.	8

3. The existence of active processes—formal and informal—for handling tensions between communities distinguished by ethnic, racial, religious, class, gender or sexual difference.	5
4. The level of social trust in other people.	9
5. The possibilities for enacting rituals and processes of remembrance and renewal.	8
6. The existence of processes—formal and informal—for welcoming new arrivals.	6
7. The translation of the monitoring of political tensions into strategies for enhancing the reconciliation processes.	5
Annotations explaining the scores:	
<i>First nations:</i> The 2011 Canterbury Earthquake Recovery Act enabled a role for the local iwi authority (Te Rūnanga o Ngāi Tahu). However more than 60 per cent of Maori resident do not identify as Ngāi Tahu, and therefore they lack formal representation in the city's rebuild (Maori and the Christchurch Earthquakes, Lambert, 2014).	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
NA	

7. Ethics and Accountability

General Question: How ethical is social life in the urban area?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch's level of ethical social life was deemed to be satisfactory (6), with exceptional levels of general integrity (9) but only basic levels of grounding of policy in clearly enunciated ethical principles (5).

Overall 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The grounding of municipal policies in clearly enunciated ethical principles.	5
2. The public accountability of powerful public figures—for example, corporate, media, and union leaders.	7
3. The general integrity brought to day-to-day transactions in public and private life.	9
4. The active role of public integrity and anti-corruption offices and organizations.	7
5. The possibility of meaningful public debate over ethical principles and their interpretation.	6
6. The institution of processes for responding consequentially to breaches in accountability.	7
7. The translation of the monitoring of corruption issues into strategies for enhancing integrity processes.	6
Annotations explaining the scores:	
<i>Transparency and anti-corruption:</i> While New Zealand historically ranks very high in the Corruption Perception Index (ranked 1 in 2016), a recent report published by Transparency International highlights a number of weaknesses and concerns. In particular, TI points to the lack of full transparency of political party funding: “continuing concerns includes the transparency of political party financing and of donations to individual politicians, a long-term decline in party membership and increased party reliance on public funding, and a lack of full transparency of public funding of the parliamentary wings of the parties” (New Zealand National Integrity System Assessment, Transparency International 2013, p. 9).	
<i>Accountability:</i> A recent report prepared by New Zealand's Auditor-General found that several building projects in Christchurch lacked a general accountability framework. This created confusion among stakeholders and public officers (Governance and accountability for three Christchurch rebuild projects, Controller and Auditor-General, 2015).	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
1.1.2. Level of adoption of urban planning principles in the city-management process.	

Christchurch, unveiling a repaired earthquake-damaged statue of Robert Falcon Scott who died returning from the South Pole.



ROBERT FALCON SCOTT
CAPTAIN ROYAL NAVY
WHO DIED RETURNING FROM THE SOUTH POLE 1912
WITH AMBUSHED BOMBERS LEGGATES PLAINS
DO NOT REGRET THE JOURNEY WHICH SHOWS
THAT ENGLISHMEN CAN ENDURE HARSHERS
HELP ONE ANOTHER AND MEET DEATH WITH
A GREAT COURAGE AS NEVER IN THE PAST

ERECTED BY THE
F. F. SCOTT SOCIETY
1912
BY
GAVIN GIBBY
1912



Culture

1. Identity and Engagement

General Question: To what extent does the urban area have a positive cultural identity that brings people together over and above the various differences?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

The Christchurch urban region was considered to have a positive unifying cultural identity (6), with good levels of sense of place (8) and tolerance with regard to other religions (8) but an unsatisfactory possibility for strangers to establish contacts with residents (4).

Overall 6	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The active cultural diversity of different local communities and groups.	6
2. The sense of belonging and identification with the local area as a whole in a way that connects across community and group differences.	6
3. The tolerance and respect for different language groups and ethnic groups in the urban area.	7
4. The tolerance and respect for different religions and communities of faith in the urban area.	8
5. The possibility of strangers to the urban area establishing and maintaining personal networks or affinity groups with current residents.	4
6. The sense of home and place.	8
7. The translation of the monitoring of community relations into strategies for enhancing identity and engagement.	6
Annotations explaining the scores:	
<p><i>Sense of community:</i> Prior to the earthquakes, Christchurch city residents reported lower levels of a sense of community (57 per cent) than the national average (60 per cent). The 2012 CERA Wellbeing Survey showed that in the year following the 2010 and 2011 earthquakes, over half of residents in greater Christchurch (55 per cent) agreed or strongly agreed that they felt a sense of community with others in their neighbourhood. This may have been because the earthquakes had engendered a greater spirit of social connectedness during a time of uncertainty and upheaval for many. However, available data shows that since September 2012, the proportion feeling a sense of community (agree or strongly agree) has trended downwards to below 50 per cent (greater Christchurch, 49 per cent as at April 2016, Canterbury Wellbeing Survey). The downward trend in the proportion of residents who feel a sense of community with others in their neighbourhood from September 2012 to April 2016 is statistically significant (Canterbury Wellbeing Index, September 2016).</p> <p><i>Civil participation in decision-making:</i> Available data shows high levels of dissatisfaction in relation to the opportunities for the public to influence earthquake recovery decisions. In April 2016, only 26 per cent of residents expressed satisfaction with opportunities for the public to influence decisions (very satisfied or satisfied), 39 per cent were dissatisfied (a statistically significant increase from 35 per cent in September 2015) and the remaining 35 per cent did not have a firm view. Satisfaction regarding participative decision making has either been stable or has fallen over time (Canterbury Wellbeing Index September 2016).</p>	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
NA	

2. Creativity and Recreation

General Question: How sustainable are creative pursuits in the urban area—including sporting activities and creative leisure activities?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

The sustainability of Christchurch's creative pursuits was judged to be good (8), with high scores across all subdomains except for time- and energy affordance.

Overall 8	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The level of participation in and appreciation of the arts—from painting to story-telling.	8
2. The level of involvement in performance activities such as music, dance and theatre as participants and spectators.	7
3. The level of cultural creativity and innovation.	9
4. The level of support for cultural events—for example, public festivals and public celebrations.	9
5. The level of involvement in sport and physical activity as participants and spectators.	8
6. The affordance of time and energy for creative leisure.	6
7. The translation of the monitoring of creative pursuits into strategies for enhancing creative engagement.	9
Annotations explaining the scores:	
<p><i>Earthquakes impact on arts facilities:</i> The 2010–2011 earthquakes had devastating effects for the arts infrastructure of greater Christchurch. All areas of visual arts at professional and community levels were affected. Important art venues and cultural spaces were disrupted, damaged or destroyed, including The Christchurch Art Gallery (which was reopened in December 2015), the Town Hall, as well as individual artists' studios. Art collections were also affected by the earthquakes (Canterbury Wellbeing Index September 2016).</p> <p><i>Attendance and Participation in arts events and cultural activities:</i> Despite the negative impact of the earthquakes, 83 per cent of Christchurch residents agree that arts and culture have a vital role to play in rebuilding the city. The level of attendance and participation in arts events has steadily increased since the 2011 earthquake. In 2014 only 13 per cent of the population did not attend arts events in the previous year (compared with 15 per cent across New Zealand), the lowest proportion since 2005. Two thirds of the population attended arts events a 'medium' or 'high' number of times. In addition, in 2014 38 per cent of the Christchurch population participated in 12 or more arts events compared with the national average of 34 per cent. The high numbers of attendance and participation in arts and cultural activities seem to reflect the sustained efforts to increase the range of opportunities available (Canterbury Wellbeing Index, September 2016).</p>	
Indicators from the UN–Habitat City Prosperity Index that might support your considerations:	
NA	

3. Memory and Projection

General Question: How well does the urban area deal with its past history in relation to projecting visions of possible alternative futures?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch's ability to deal with its history and projection of alternative futures was evaluated to be good (8), with above-average scores across all subdomains.

Overall 8	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The level of respect for past traditions and understanding of their differences.	7
2. The protection of heritage sites and sacred places.	8
3. The maintenance of monuments, museums and historical records.	7
4. The active recognition of indigenous customs and histories.	7
5. The sense of hope for a positive future for the urban area as a whole.	8

6. The level of public discussion that actively explores possible futures.	8
7. The translation of the monitoring of themes of past and future into strategies for enhancing positive engagement.	8
Annotations explaining the scores:	
A survey conducted in April and May 2017 among Christchurch residents shows a high level of concern/interest on issues related to heritage protection. In particular, residents considered heritage protection to be critical for the promotion of a strong cultural identity and a sense of community and belonging (The Future of Heritage Survey Responses 2017).	
<i>Heritage loss:</i> The 2010–2011 earthquakes had significant effects on the heritage buildings in the urban area. After the 2010 earthquake the Ministry for Culture and Heritage developed a Heritage Recovery Program (which continued until 2016). A report published in 2016 detailed:	
<ul style="list-style-type: none"> • 62 per cent of the scheduled heritage buildings in Christchurch City survive (366 of 588 buildings) • 51 per cent of the scheduled heritage buildings in Christchurch’s central city survive (158 of 309 buildings) • 89 per cent of the scheduled heritage buildings in Banks Peninsula survive (296 of 334 buildings) • 95.5 per cent of the scheduled heritage buildings in Selwyn survive (150 of 158 buildings) • 89 per cent of the scheduled heritage buildings in Waimakariri survive (101 of 113 buildings, most of the losses being in Kaiapoi) 	
In 2016, the Greater Christchurch Regeneration Act 2016 (GCR Act) was enacted to support the regeneration of greater Christchurch. The focus of heritage management has likewise shifted from demolition to repair, strengthening and alterations (<i>Heritage Recovery Programme Update 2017</i> , Ministry for Culture and Heritage).	
Indicators from the UN–Habitat City Prosperity Index that might support your considerations:	
1.2.1. Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation); the level of government (national, regional and local/municipal) expenditure; the type of expenditure (operating expenditure/investment); and the type of private funding (donations in kind, private non-profit sector and sponsorship).	

4. Belief and Meaning

General Question: Do residents of the urban area have a strong sense of purpose and meaning?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch’s population’s general sense of purpose and meaning was judged to be highly satisfactory (7), with above-average scores across all subcategories.

<i>Overall</i> 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The level of knowledgeable engagement in cultural pursuits in the urban area.	8
2. The possibilities for counter-ideologies being discussed and debated publicly.	8
3. The level of thoughtful consideration that lies behind decisions made on behalf of the people of the urban area.	8
4. The sense of meaning that local people have in their lives?	7
5. The extent to which people of different faiths or spiritualities feel comfortable practicing their various rituals, even when their beliefs are not part of the dominant culture.	8
6. The possibility that passions can be publicly expressed in the urban area without descending into negative conflict.	7
7. The translation of the monitoring of ideas and debates into strategies for enhancing positive engagement.	6
Annotations explaining the scores:	
There is high sense of cultural engagement in Christchurch, and a relatively comfortable pluralism of different beliefs and faiths. The city faces all of the kinds of issues associated with the global unsettling of social meaning, but these are mitigated by a strong sense of the city as a good place to live.	
Indicators from the UN–Habitat City Prosperity Index that might support your considerations:	
NA	

5. Gender and Generations

General Question: To what extent is there gender and generational wellbeing across different groups?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

The theme of gendered and generational wellbeing in Christchurch was deemed to be consistently above average (Highly Satisfactory), with aged care being assessed as satisfactory (6), but the levels of tolerance regarding sexuality as well as the availability of child care and lack of gender stereotyping as child care is concerned being viewed as good (8).

Overall		7
Particular Questions		
<i>How sustainable are the following aspects of the urban area?</i>		
1. The equality of men and women in public and private life.		7
2. The positive expression of sexuality in ways that do not lead to intrusion or violation.		8
3. The contribution of both men and women to bringing up children.		8
4. The availability of child-care in the urban area—whether formal or informal, public or private.		8
5. The positive engagement of youth in the life of the urban area.		7
6. The availability of aged-care in the urban area—whether formal or informal, public or private.		6
7. The translation of the monitoring of gender and generational relations into strategies for enhancing positive engagement.		7
Annotations explaining the scores:		
<p><i>Gender equality:</i> New Zealand ranks among the OECD countries with the smallest gender pay gap (Economic Survey New Zealand, OECD, 2017, p. 17). However, women still face barriers in employment and they lack representation on boards, especially within the state sector.</p> <ul style="list-style-type: none"> • Women are paid less than men in all sectors (the wage gap is 9.9 per cent). • 65 per cent of women participate in the labour force, compared to 75 per cent of men. <p><i>Domestic violence:</i> Again, while Christchurch scored relatively high in this area, it was recognized that gender-based violence in the home continues to be one of the most pervasive crimes affecting women in New Zealand with intimate violence and child abuse representing 50 per cent of violent crimes (New Zealand's National Plan of Action, New Zealand Human Rights Commission, 2018).</p>		
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:		
5.3.2. Proportion of seats held by women in national parliaments and local governments.		
5.3.2p Women in managerial positions, including public administration and private sector enterprises.		
5.3.3. Proportion of women in the workforce.		
5.4.3. Proportion of women (15 years and older) subjected to physical or sexual harassment in public spaces, in the last 12 months, by perpetrator and place of occurrence. (repeat)		

6. Enquiry and Learning

General Question: How sustainable is formal and informal learning in the urban region?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Formal and informal learning in Christchurch was deemed to be highly satisfactory (7), with room for improvement with regard to support for considered reflection in education processes (5) but good accessibility of active centres of discovery (8).

Overall 7	
Particular Questions	
<i>How sustainable are the following aspects of the urban region?</i>	
1. The accessibility of active centres of discovery—ranging formal scientific research institutes to places of playful discovery for children.	8
2. The active participation of people in the urban area in deliberation and debate over ideas.	6
3. The accessibility of active centres of social enquiry—both formal and informal—ranging in focus from scientific research to interpretative and spiritual enquiry.	7
4. The active participation of people in formal and informal education, across gender, generation, ethnicity, and class differences.	6
5. The existence of local cultures of writing—from philosophical and scientific to literary and personal.	7
6. The setting aside of time in the various education processes—both formal and informal—for considered reflection.	5
7. The translation of the monitoring of education practices into quality-improvement strategies.	7
Annotations explaining the scores:	
<i>Formal and informal education:</i> In the Canterbury Region 65 per cent of the residents between 25 and 65 years old have high prose literacy skills while 55 per cent of the residents in this age range have high numeracy skills ('high prose and numeracy' skills refer to the skill level required for successful secondary school completion and college entry; see report Adult Literacy and Numeracy in New Zealand, 2010). 75 per cent of residents completed upper secondary or tertiary education (New Zealand Stats, 2018).	
<i>Access to education:</i> There is good accessibility to education and ample offerings of courses and academic pathways. Canterbury has two universities and one technical institute.	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
5.1.2. Adult literacy rate, defined as the percentage of population aged 15 years and older who can read and write a statement related to his/her everyday life.	
5.3.1. Proportion of youth (aged 15–24 years) not in education, employment or training.	

7. Wellbeing and Health

General Question: What is the general level of wellbeing across different groups of residents?

1	2	3	4	5	6	7	8	9
Critical	Bad	Highly Unsatisfactory	Unsatisfactory	Basic	Satisfactory	Highly Satisfactory	Good	Vibrant

Christchurch's general wellbeing was evaluated to be satisfactory (6), lowered by highly unsatisfactory levels for health care and counselling capacities (3) but generally good sense of control regarding questions of bodily integrity and wellbeing (8).

Overall 6	
Particular Questions	
<i>How sustainable are the following aspects of the urban area?</i>	
1. The sense of control that people have in the urban area over questions of bodily integrity and wellbeing.	8
2. The level of knowledge that people in the urban area have in relation to basic health issues.	7
3. The availability of consulting professionals or respected community elders to support people in time of hardship, stress or grief.	5
4. The capacity of the urban area to meet reasonable expectations that people in the urban area hold about health care or counselling.	3
5. The participation of people in practices that promote wellbeing.	7
6. The cultural richness of cuisine and good food.	6
7. The translation of the monitoring of health and wellbeing practices into quality-improvement strategies.	6
Annotations explaining the scores:	
<i>Health care and counselling:</i> Noting that this theme concerned mental health and wellbeing rather than physical health, participants considered that the capacity to meet expectations about health care and counselling is very low, particularly considering how the earthquakes affected the population. Between 2009/2010 and 2015/2016 there was a 100 per cent increase in children and young people seeking mental health help. Similarly, in this period there was a 36 per cent increase in adult presentations to mental health services in the Canterbury District Health Board-DHB. The sustained increased in the demand has surpassed the existing mental health and counselling capacity in the city (Annual review 2016/1017, Canterbury District Health Board).	
Indicators from the UN-Habitat City Prosperity Index that might support your considerations:	
NA	



Punta Arenas, Libertado Bernardo O'Higgin's in the early morning light.

Perfil Urbano de Punta Arenas

Punta Arenas es la ciudad capital de la Región de Magallanes, tiene una población de 125,000 habitantes y es el principal centro urbano en el extremo austral de la Patagonia chilena. La ciudad fue fundada en 1848 por militares chilenos y, al igual que otras ciudades antárticas, se estableció originalmente como una colonia penal. El nombre de Punta Arenas es un derivado de la expresión inglesa ‘Sandy Point’, ya que el área había sido identificada de este modo por la cartografía británica. Toda esta región de la Patagonia austral fue habitada durante milenios por varios pueblos originarios, principalmente Kawésqar, Yámanas, Aonikenk y Selknam. Se estima que antes de la ocupación europea en la región, decenas de miles de pobladores nativos vivían en sociedades nómades de cazadores-recolectores. Sin embargo, especialmente a partir del siglo XIX, las poblaciones originarias fueron diezmadas como consecuencia de la ocupación ganadera y el genocidio indígena auspiciado por los gobiernos de Chile y Argentina. Actualmente, la nación mapuche es la más numerosa tanto en la región de Magallanes como en la ciudad de Punta Arenas, aunque la Región también es hogar de algunos de los últimos hablantes de idiomas nativos como el Yagán y el Kawésqar.

Punta Arenas está atravesada por el Río de las Minas, el cual nace al Oeste de la ciudad, en la Reserva Nacional de Magallanes, y desemboca en el Estrecho de Magallanes. La ciudad se encuentra en un entorno de transición entre el bosque magallánico—compuesto por especies de lenga, ñirre y coigüe de magallanes—y la estepa patagónica, compuesta principalmente por el coirón, que es utilizado como recurso pastoril por productores locales. La importancia ecológica de esta región de la Patagonia austral es de un valor incalculable, debido a la gran presencia de glaciares (aunque en franco retroceso), como así también a su biodiversidad. En las regiones colindantes con Punta Arenas se encuentran importantes reservas naturales, incluyendo al Parque Nacional Padre Agostini y al Cabo de Hornos, los cuales fueron declarados Reserva de la Biosfera por la UNESCO en el año 2005 y son considerados una de las ecorregiones más prístinas del planeta.

La Comuna de Punta Arenas, municipio del cual la ciudad homónima es su capital, es administrada por una alcaldía y un Consejo Municipal y se compone de 15 distritos censales. Un desafío significativo tanto a nivel regional como municipal está dado por los bajos niveles de participación electoral de la Región. En las elecciones presidenciales de 2017, por ejemplo, sólo el 38 por ciento de la población participó del proceso electoral (por debajo de la media nacional de 46 por ciento). De modo similar, en el importante plebiscito celebrado en 2020 en torno a una eventual reforma constitucional sólo el 41 por ciento de la población de Magallanes participó del proceso, por debajo de la media nacional (51 por ciento). Otro desafío importante a nivel regional es la necesidad de mejorar los canales de consulta previa a los pueblos originarios de la región. Aunque existen mecanismos de diálogo, en la última década la Patagonia chilena ha sido escenario de importantes conflictos entre el Estado nacional y los pueblos originarios, y la Región de Magallanes no ha sido excepción. Cabe destacar que más de un 20 por ciento de la población de la Punta Arenas pertenece a algún pueblo originario (mayormente a la nación mapuche), por lo que resulta clave encontrar mecanismos de diálogo y negociación con las comunidades indígenas que tomen en cuenta seriamente las demandas planteadas de modo eficiente y duradero.

Punta Arenas se ubica estratégicamente en la ruta de navegación que comunica los océanos Atlántico y Pacífico a través del Estrecho de Magallanes, y es potencialmente un punto de gran influencia en el comercio internacional. Las actividades económicas más importantes son la actividad portuaria, la industria de los hidrocarburos y los servicios y comercio, seguido de la ganadería, mayormente ovina, la pesca y la actividad forestal. Las principales exportaciones son el pescado congelado, que representa el 21% de las exportaciones, y las briquetas de carbón, que alcanza el 12 por ciento de las exportaciones totales (datos de 2016). Las principales ocupaciones en Punta Arenas son: profesionales científicos e intelectuales (17 por ciento), trabajadores de servicios y comercio (14 por ciento) y técnicos y profesionales de nivel medio (14 por ciento). El ingreso promedio en Magallanes ha crecido sostenidamente en la última década y ronda los 450 mil pesos chilenos mensuales (unos US\$630), aunque existe una disparidad significativa entre hombres (ingreso promedio de 500 mil CLP) y mujeres (ingreso promedio de 400 mil CLP).

Punta Arenas alberga varios museos e instituciones culturales de gran valor, como el Museo Nao Victoria, el Museo de Punta Arenas, el Museo de Historia Natural Río Seco, el Palacio Sara Braun (declarado monumento nacional en 1981), y es sede de un gran número de festivales populares y folclóricos típicos de esta región de la Patagonia. Más importante aún, las islas que se encuentran al sur de Punta Arenas son hogar de algunos de los últimos hablantes nativos de idiomas originarios, como los Yámanas y los Kawésqar, por lo que resulta imperioso proteger y promover el patrimonio cultural de la región.

Punta Arenas como ciudad Antártica

La ciudad de Punta Arenas y la de Ushuaia son las más cercanas geográficamente al continente Antártico. Menos de 1000 km separan a la región del Cabo de Hornos de la Península Antártica, mientras que para llegar desde Hobart o Christchurch hay que recorrer 2600km, y desde Ciudad del Cabo alrededor de 4000 km. La cercanía geográfica y una política pública de largo plazo han sido claves para potenciar el rol de Punta Arenas como base logística de la conexión con la Antártida, en particular las investigaciones científicas llevadas adelante en la Península Antártica.

El vínculo de la ciudad con la Antártida es especialmente evidente en el propio paisaje de esta ciudad asentada en la ribera del Estrecho de Magallanes y rodeada por archipiélagos, bosques fríos, fiordos y glaciares. Punta Arenas es parte de una amplia ecorregión

conocida como el Bosque Subpolar Magallánico, donde se encuentra lo que a veces es llamado ‘flora antártica’ y que comparte varias familias de plantas con ecorregiones de bosques fríos y templados en Nueva Zelanda, Tasmania y Australia. En este grupo se incluyen varias especies de la Haya del Sur o *Nothofagus*, como *N. Betuloides*, *N. Antarctica*, y *N. Pumilio*, especies fuertemente adaptadas a climas extremos, vientos abundante nieve. Toda la ecorregión es altamente sensible a patrones geológicos y climáticos Antárticos. La Corriente Circumpolar Antártica, en particular, juega un papel especialmente importante en moderar temperaturas extremas estacionales en la ecorregión, manteniendo los bosques húmedos y frescos.

Pero además de un vínculo ecosistémico y la cercanía geográfica, la ciudad se ha posicionado en los últimos años como un importante centro logístico para numerosos programas antárticos nacionales que operan en la ciudad, así como para las iniciativas científicas y militares del estado chileno. Entre las iniciativas más relevantes en los últimos años cabe destacar: la construcción de la primera nave de investigación (Karpuj) del Instituto Antártico Chileno (INACH); la inauguración de la Estación Polar Científica Conjunta ‘Glaciar Unión’ cerca del polo sur, operado por INACH y las tres fuerzas armadas; el desarrollo de un programa escolar masivo, la ‘Feria Antártica Escolar’, para promover el conocimiento y los valores antárticos entre estudiantes jóvenes; la creación de la guía turística ‘Huellas Antárticas en Punta Arenas y el estrecho de Magallanes’ y los planes para el establecimiento de un Centro Antártico Internacional en la ciudad.

Cuadro 1. La Región Urbana Evaluada

Nombre del área urbana en cuestión: (O sea, el nombre de la ciudad, pueblo, municipalidad, etc., que vaya a ser evaluada.)	Punta Arenas (Nota: Esto se refiere a la región metropolitana, no al área de administración local).
Extensión geográfica del área urbana en km2.	17,846 kilómetros cuadrados
Población del área urbana.	125,483 ³⁶
Período de la evaluación:	2018

El enfoque de los *Círculos de Sostenibilidad* ofrece un método integrado para hacer frente, de forma práctica, a problemas complejos pertinentes a la sostenibilidad, la resiliencia, la adaptación, y la habitabilidad. Se utiliza para guiar a Punta Arenas en el difícil proceso de responder a problemas o desafíos complejos o aparentemente intratables frente al objetivo de lograr la sostenibilidad a largo plazo.³⁷ Este enfoque se basa en la fortaleza de un programa de investigación desarrollado en colaboración con Metrópolis, el programa Ciudades del Pacto Mundial de Naciones Unidas, World Vision y otras organizaciones internacionales claves. Fue elaborado con la participación práctica de distintas ciudades en el mundo, incluyendo a Berlín, Melbourne, Milwaukee, Nueva Delhi, Porto Alegre, San Francisco, y La Valeta, para nombrar algunas.³⁸

El proceso que aplica el perfil de los *Círculos de Sostenibilidad* pretende desarrollar una descripción interpretativa de la sostenibilidad de una región urbana y sus alrededores. Aquí, la sostenibilidad se entiende con respecto a procesos locales, nacionales y mundiales: ecológicos, económicos, políticos y culturales. El proceso de los *Círculos de Sostenibilidad* se considera parte del proceso de evaluación más general de los *Círculos de la Vida Social*, que incluye las nociones de vitalidad, productividad, capacidad relacional y sostenibilidad (incluyendo resiliencia y adaptación).

La plantilla del perfil de sostenibilidad se utiliza para poder entender de forma más amplia a una “región urbana”, en este caso: Punta Arenas. Al responder a las preguntas en el Cuestionario del perfil urbano, se puede generar una representación clara y simple del perfil de sostenibilidad de esa región. En el gráfico 2 en la siguiente página se muestran ejemplos de ciudades representativas de alrededor del mundo.

36 Municipalidad de Punta Arenas 2012 (Región de Magallanes: 166 395. Estimación del Instituto Nacional de Estadísticas, 2017).

37 Paul James, con Liam Magee, Andy Scerri y Manfred Steger, *La sostenibilidad urbana en la teoría y la práctica: Los círculos de sostenibilidad*, Routledge, Londres, 2015.

38 Véase: www.circlesofsustainability.org

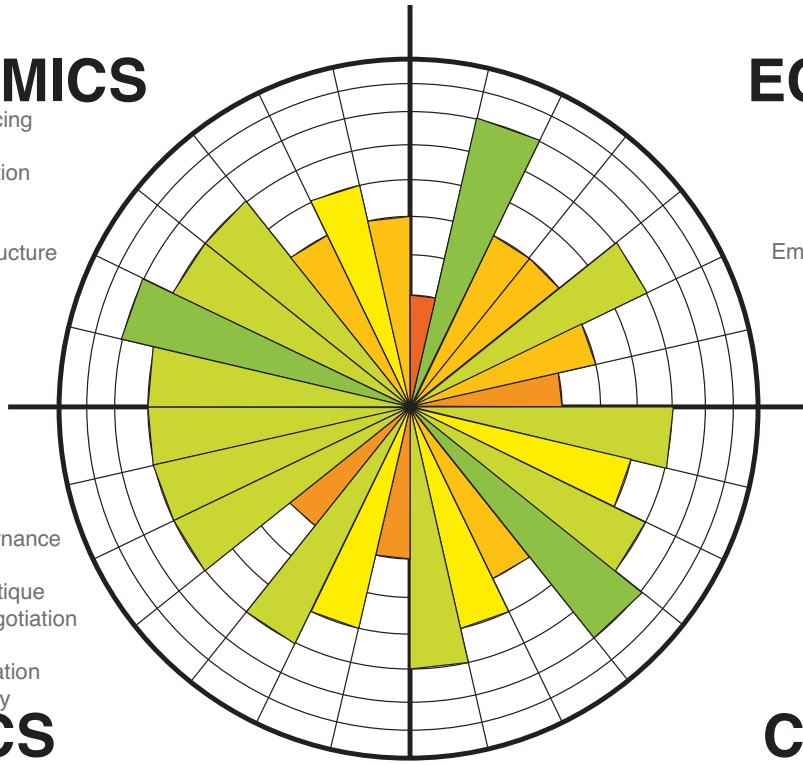
Punta Arenas ²⁰¹⁸

ECONOMICS

Production & Resourcing
 Exchange & Transfer
 Accounting & Regulation
 Consumption & Use
 Labour & Welfare
 Technology & Infrastructure
 Wealth & Distribution

ECOLOGY

Materials & Energy
 Water & Air
 Flora & Fauna
 Habitat & Settlements
 Built-Form & Transport
 Embodiment & Sustenance
 Emission & Waste



Organization & Governance
 Law & Justice
 Communication & Critique
 Representation & Negotiation
 Security & Accord
 Dialogue & Reconciliation
 Ethics & Accountability

POLITICS

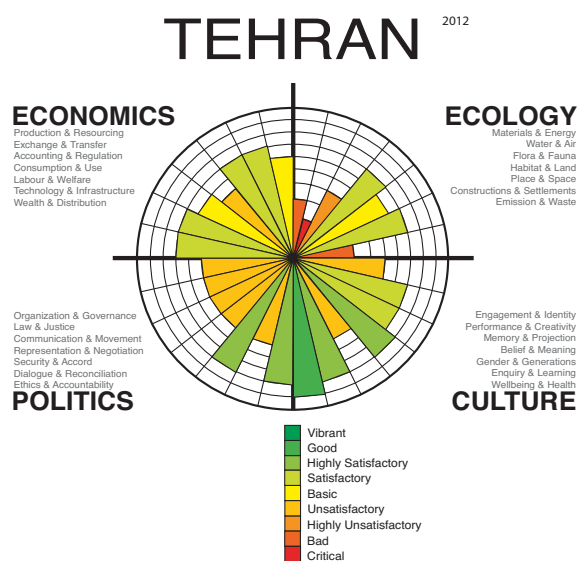
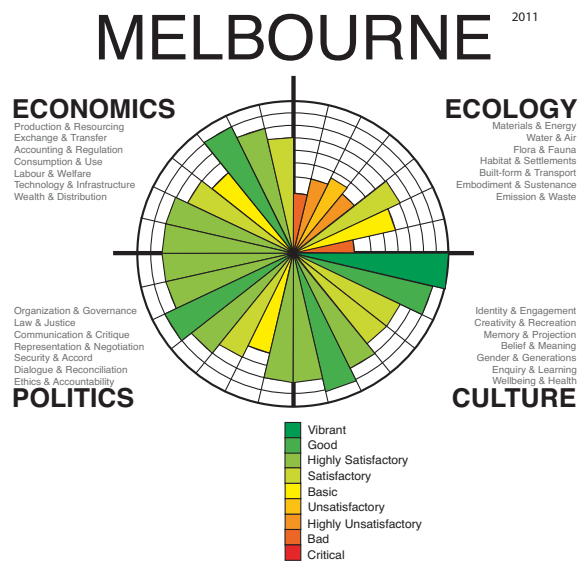
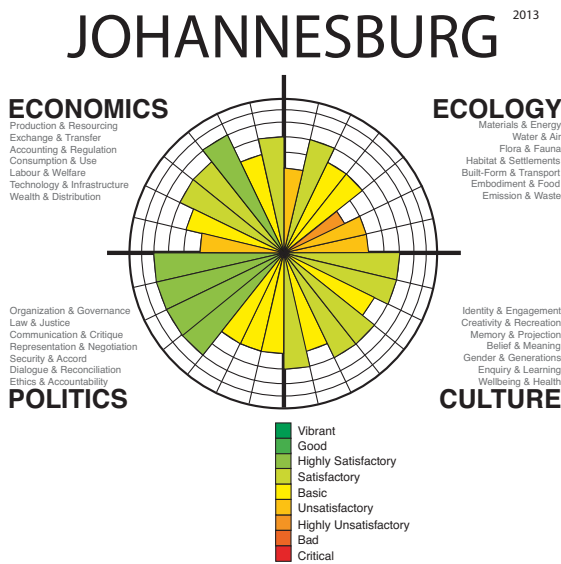
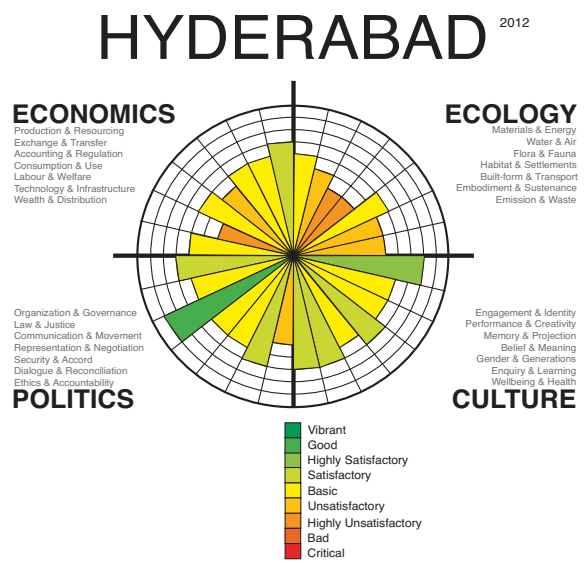
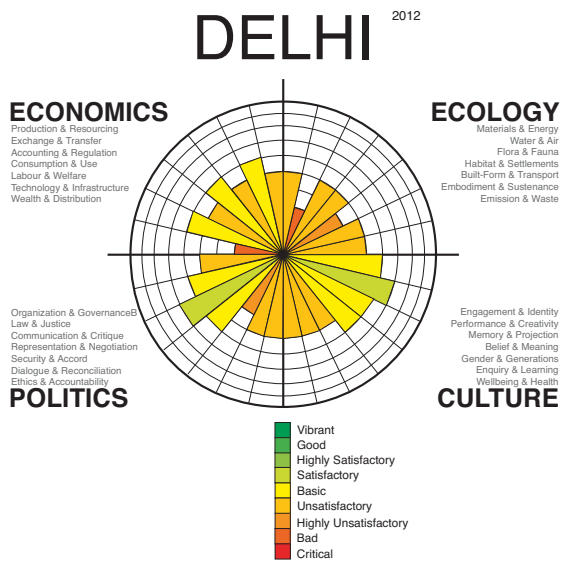
Identity & Engagement
 Creativity & Recreation
 Memory & Projection
 Belief & Meaning
 Gender & Generations
 Enquiry & Learning
 Wellbeing & Health

CULTURE



CIRCLES OF SUSTAINABILITY

Gráfico 2. Evaluaciones de los Círculos de Sostenibilidad



*Sao Paulo Macro Metropolitan Region, 2012

Cada uno de estos gráficos representa una auto-evaluación cualitativa por parte de expertos locales y de la sostenibilidad en las áreas urbanas pertinentes. El grupo de evaluación debe definir el alcance del área urbana en cuestión antes de comenzar la evaluación (véase el Cuadro 1 precedente). Por ejemplo, en el gráfico 2 precedente, “Sao Paulo” se refiere a la región metropolitana de Sao Paulo en su amplitud. De la misma forma, “Melbourne” en este caso se evalúa para toda la región metropolitana de Melbourne, no solo en el Municipio que es mucho más pequeño tanto del punto de vista geográfico como demográfico.

El nivel de la evaluación

El Panel de evaluación de Punta Arenas se reunió inicialmente en un taller de medio día en el 2017 para llevar a cabo la evaluación de Punta Arenas. Inicialmente, veinticinco expertos en Punta Arenas llevaron a cabo una Evaluación rápida (véase el Cuadro 3 siguiente). Estos expertos también forman parte del Grupo de referencia, cada uno con pericia en los campos de ecología, economía, política y cultura. Nos dividimos en estos cuatro grupos apoyados con moderadores y escribas, y respondimos a la pregunta principal en cada uno de los subcampos haciendo referencia a los aspectos de tercer nivel, y anotando los comentarios evaluativos sobre la marcha. El equipo central de la Universidad de Western Sydney llevó a cabo una revisión posterior, en la cual se refinaron y desarrollaron las anotaciones y los detalles de la evaluación. El borrador se distribuyó al Grupo de referencia para su consideración y comentarios, para así lograr un Perfil de evaluación anotada.

Cuadro 2. El nivel del proceso de la evaluación

<p>Cada uno de los primeros cuatro niveles puede llevarse a cabo como una evaluación registrada. Esto implica tener que registrar la evaluación con el Programa Ciudades o con el Metrópolis, incluyendo una descripción del proceso que utilizó el equipo para completarla. Este registro verifica que el proceso se llevó a cabo de forma correcta y completa.</p> <p>El proceso de mapeo del perfil puede completarse a cinco niveles:</p> <p>1. Perfil de evaluación rápida Se responde a la única “pregunta general” en cada “perspectiva” marcando la escala de 9 puntos.</p> <p>2. Perfil de evaluación global Se responde a las “preguntas específicas” en cada “perspectiva” marcando la escala de 9 puntos.</p> <p>3. Perfil de evaluación anotada Se completa el ejercicio en el Nivel 2 y se escriben anotaciones detalladas sobre cómo se llegó a cada punto en la escala.</p> <p>4. Perfil de evaluación integral, I Se completa el ejercicio en el Nivel 3 y se escribe un informe principal sobre el área urbana, guiándose con las preguntas para su redacción. y/o</p> <p>Perfil de evaluación integral, II Se completa el ejercicio en el Nivel 3 además de asignar indicadores métricos a cada punto en la escala.</p> <p>5. Una evaluación certificada Se completa el Perfil de evaluación en uno de los niveles precedentes, y se negocia con el equipo de Proyecto Círculos para que sus Asesores globales presten su análisis crítico y certifiquen la evaluación.</p>	<p>Los vistos aquí debajo indican que se ha completado la elaboración del perfil.</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p>
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Definiciones Pertinentes a este Cuestionario

- “Sostenibilidad” se define como actividad que «satisface a las necesidades del presente sin comprometer las posibilidades de las generaciones del futuro para atender sus propias necesidades».³⁹ Esta definición representa el mínimo en lo que el cuestionario denomina como “sostenibilidad satisfactori”.
- “Sostenibilidad positiva” se define como las prácticas y significados de la participación humana que generan un mundo de la vida (*Lebenswelt*) que demuestra prosperidad social, dinamismo, resiliencia, y adaptación.
- “Área urbana” o “área”, según se usa en el cuestionario se refiere al área que usted haya definido como base para llevar a cabo esta evaluación. El concepto de “local” hace referencia al espacio dentro del área urbana.
- “Región urbana” quiere decir el área urbana y sus alrededores inmediatos, incluyendo el espacio periurbano, el territorio agrario y rural colindante, y las cuencas hidrográficas si están en las inmediaciones del área urbana.
- “Extensión regional” hace referencia a la zona abarcada por dos a tres horas de viaje terrestre desde la región urbana.
- Conceptos tales como “bueno” y “adecuado” deben definirse con respecto a los valores de los encuestados en la evaluación de sostenibilidad, pero son el tipo de temas que debería definir el panel de evaluación de una evaluación anotada.

39 Comisión Mundial sobre el Medio Ambiente y el Desarrollo, *Nuestro futuro común*, Oxford University Press, Oxford, 1997, p. 8.

La Escala a Aplicar al Juicio Crítico

El cuestionario requiere la elaboración de un juicio crítico en una escala de nueve puntos de sostenibilidad, yendo desde el nivel crítico de sostenibilidad hasta la sostenibilidad excelente (definida como dinámica y vibrante). El período en cuestión es el actual (si no se dice lo contrario), y la proyección en el tiempo se limita a los próximos 30 años o a una generación, remitiéndose a la definición de ‘desarrollo sostenible’ de las Naciones Unidas como desarrollo que satisface las necesidades de las personas ahora, sin comprometer las posibilidades para atender las necesidades de la próxima generación.

El nivel de sostenibilidad *crítico*, en el extremo menos sostenible del espectro, hace referencia a un nivel de sostenibilidad que requiere cambios urgentes o críticos *ahora mismo* para lograr una viabilidad continua básica en los próximos treinta años y como tal en la vida adulta de la próxima generación.

El nivel de sostenibilidad *excelente*, al otro extremo del espectro, se refiere a un nivel de sostenibilidad que actualmente produce condiciones sociales y medio ambientales dinámicas y vibrantes que auguran el auge positivo y a largo plazo para las próximas generaciones.

El nivel de sostenibilidad *básico*, el punto medio de la escala, significa un nivel que permite – si todos los otros factores de presión se mantienen iguales – un equilibrio básico en el período venidero que permita satisfacer las “necesidades” de la próxima generación. Véase el cuadro 5, abajo.

Cuadro 4. La escala de niveles de sostenibilidad

1	2	3	4	5	6	7	8	9
Crítico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Esta es una encuesta cualitativa, pero puede vincularse a cualquier conjunto de indicadores integrales que midan la sostenibilidad, el bienestar, la resiliencia, la prosperidad y la adaptabilidad. Debajo presentamos un ejemplo de lo que es posible. Hemos vinculado los varios subcampos del *Círculo de Sostenibilidad* con el Índice de Prosperidad Urbana de la ONU (véase el gráfico 3 siguiente).

Los Temas de Interés

El proceso del perfil urbano se basa en un modelo de cuatro campos. Cada campo se divide en siete perspectivas (presentadas en el Cuadro 5 siguiente), y se plantean siete preguntas sobre cada perspectiva (véase el cuestionario siguiente).

Cuadro 5. Resumen de la estructura del proceso del perfil urbano

Campos	Subcampos	Posibles temas a tener en cuenta
Ecología	<ul style="list-style-type: none"> • Materiales y energía • Agua y aire • Flora y fauna • Hábitat y asentamientos • Construcción y transporte • Cuerpo y sustento • Emisiones y residuos 	<ul style="list-style-type: none"> • Fuentes energéticas, incluyendo el petróleo, etc. • Calidad del aire, adaptación al cambio climático, etc. • Parques y jardines, cobertura arbórea, etc. • Destrucción del hábitat, uso del suelo, etc. • Desarrollo espacial urbano, vivienda, etc. • Salud física humana, nutrición, etc. • Contaminación, reciclaje, gestión de residuos, etc.
Economía	<ul style="list-style-type: none"> • Producción y dotación de recursos • Intercambio y transferencia • Contabilidad y reglamentación • Consumo y uso • Trabajo y bienestar • Tecnología e infraestructura • Riqueza y distribución 	<ul style="list-style-type: none"> • Industria y comercio, recursos, etc. • Dinero, comercio de bienes y servicios, etc. • Sistemas normativos, etc. • Patrones de consumo, uso de bienes, etc. • Mercados laborales, disposiciones económicas, etc. • Tecnologías altas y bajas, etc. • Pobreza, desempleo, desigualdad, etc.

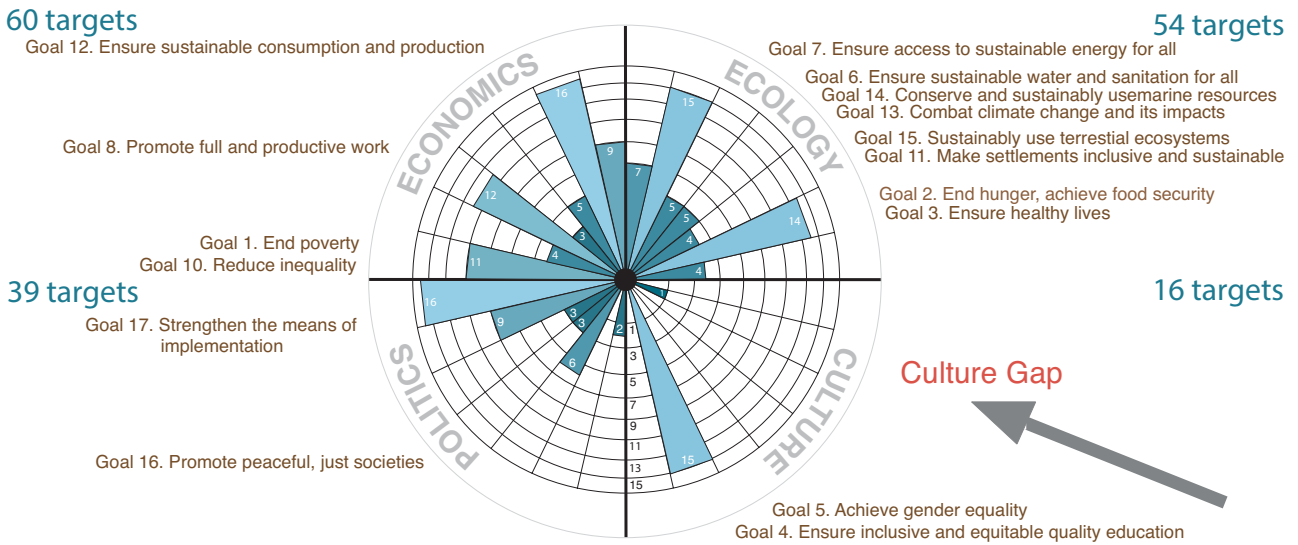
Política	<ul style="list-style-type: none"> • Organización y gobierno • Derecho y administración de justicia • Comunicación y crítica • Representación y negociación • Seguridad y acuerdos • Diálogo y reconciliación • Ética y responsabilidades públicas 	<ul style="list-style-type: none"> • Legitimidad, sistema de gobierno, etc. • Sistema judicial, justicia política, etc. • Prensa, medios de comunicación, información, disenso; protesta, etc. • Participación ciudadana, civismo electoral, etc. • Tensión política, presencia militar, etc. • Derechos consuetudinarios, comisiones de la verdad, etc. • Problemas de corrupción, ética pública, etc.
Cultura	<ul style="list-style-type: none"> • Identidad y participación • Creatividad y ocio • Memoria y proyección a futuro • Creencias y sentidos • Género y generaciones • Investigación y aprendizaje • Salud y bienestar 	<ul style="list-style-type: none"> • Etnias, identidades culturales, imaginarios, etc. • Festejos, eventos y rituales, deportes, etc. • Historia indígena; museos; etc. • Religión y espiritualidad; ideologías, etc. • Relaciones de género, familiares, intergeneracional, etc. • Sistemas de educación y formación, etc. • Salud mental y emocional, bienestar, etc.

En vez de simplemente extraer los temas que resultan ser pertinentes en la actualidad, esta estructura sistemática intenta abarcar todos los ámbitos de la condición humana.

El enfoque Círculos ha sido aplicado para mapear los Objetivos de Desarrollo Sostenible de la ONU.

Gráfico 3. El mapeo de los Objetivos y Metas de Desarrollo Sostenible a través del enfoque de los Círculos de la Vida Social

Mapping the Sustainable Development Goals Using the Circles of Social Life Framework



DOMAINS OF THE SOCIAL

ECONOMICS

- Production & Resourcing
- Exchange & Transfer
- Accounting & Regulation
- Consumption & Use
- Labour & Welfare
- Technology & Infrastructure
- Wealth & Distribution

POLITICS

- Organization & Governance
- Law & Justice
- Communication & Critique
- Representation & Negotiation
- Security & Accord
- Dialogue & Reconciliation**
- Ethics & Accountability

ECOLOGY

- Materials & Energy
- Water & Air
- Flora & Fauna
- Habitat & Settlements
- Built-form & Mobility
- Embodiment & Sustenance
- Emission & Waste

CULTURE

- Identity & Engagement**
- Creativity & Recreation**
- Memory & Projection
- Belief & Meaning**
- Gender & Generations**
- Enquiry & Learning
- Wellbeing & Health**



A partir de este mapeo se desprenden el tipo de temas que excluyen los Objetivos de Desarrollo Sostenible: temas culturales que tienen que ver con la identidad, el reconocimiento, la cohesión, además de cuestiones pertinentes a la reconciliación política.



\$ 728.0

Punta Arenas, Copec petrol-station sign.



Cuestionario del perfil urbano

Ecología

1. Materiales y energía

Pregunta general: ¿Cuán sostenible es la generación de energía en el área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 2

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La disponibilidad de recursos materiales en la extensión regional. ⁴⁰	2
2. La disponibilidad de alimentación cultivada en la región urbana inmediata.	4
3. La disponibilidad de minerales y metales extraídos en la extensión regional.	2
4. La proporción de energía eléctrica de generada de fuentes renovables.	1
5. Dependencia sobre los hidrocarburos del área urbana.	1
6. Utilización de materiales reciclados.	1
7. La transformación del control del uso de los recursos en estrategias de reducción.	3

Anotaciones explicativas de las puntuaciones:

Recursos materiales: Hay disponibilidad limitada de la madera en la región; el consumo local se suministra con importaciones de otras regiones del país. Según datos del 2015, menos del 50 por ciento del consumo regional de madera aserrada fue de producción local (se produjeron 34,400 m³ / se consumieron 72,700 m³) [Procedencia: <http://wef.infor.cl>].

Energía: La Región de Magallanes hace un aporte significativo a la producción nacional de gas y consume el mayor nivel de gas en el país. Aunque el consumo de gas ha disminuido levemente en los últimos años, sigue representando más del 65 por ciento del consumo energético en Magallanes. El petróleo y sus derivados representan el 31 por ciento, la electricidad el 3 por ciento, y la biomasa el 2 por ciento. Los hidrocarburos representan al menos el 96 por ciento de la matriz energética regional (nivel significativamente más alto que el promedio nacional de 68 por ciento). (Energía 2050. Política Energética. Magallanes y la Antártica Chilena, Ministerio de Energía, 2017). Magallanes es también la mayor productora de carbón en Chile (95 por ciento de la producción nacional en 2015). Hay 266 millones de toneladas de reservas comprobadas de carbón en la región, y 555 millones de toneladas estimadas como probables. (Energía 2050. Política Energética. Magallanes y la Antártica Chilena, Ministerio de Energía, 2017).

Prácticas de reciclaje: En una encuesta sobre concienciación medioambiental en el 2014, el 57 por ciento de los encuestados de Punta Arenas dijeron que reciclan. Cuando se les preguntó cómo y cuándo reciclan, la mayoría contestó que reciclan en sus casas (44 por ciento), mientras otros reciclan en los supermercados (16 por ciento) o en el colegio (10 por ciento). [Primera Encuesta Nacional de Medio Ambiente: opiniones, comportamientos y preocupaciones, CADEM, 2014, p. 36-38].

Estrategias de reducción del uso de recursos: El Grupo de referencia evaluó que, si bien existen algunas iniciativas, la región no cuenta con una estrategia global de utilización sostenible de los recursos materiales. El Ministerio de Energía elaboró en 2017 una estrategia energética integral a nivel nacional y regional (Energía 2050. Política Energética. Magallanes y la Antártica Chilena, Ministerio de Energía, 2017), pero aún queda por implementarse.

⁴⁰ "Extensión regional" aquí quiere decir la zona abarcada por dos a tres horas de viaje terrestre. La frase "recursos materiales" incluye a todos los recursos: desde el agua, los alimentos, y la energía, hasta el hormigón y el acero.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

3.2.3p Empleos en la fabricación de materiales de construcción a nivel local. El término “materiales de construcción disponibles a nivel local” se refiere a materiales cuyo ciclo vital íntegro (incluyendo todas las fases de la cadena productiva: 1. extracción de la materia prima, 2. fabricación de los productos de construcción, 3. venta y 4. uso de los productos de construcción, 5. reciclaje/final de vida) se lleva a cabo dentro de la misma región. (repetir)

4.2.1. Porcentaje de la población con acceso a la energía eléctrica, que se define como con conexión a la red eléctrica (o a fuentes alternativas confiables) y con abastecimiento continuo.

4.2.1p Porcentaje de la población que, a nivel de hogar, depende principalmente de los carburantes y las tecnologías limpias (en vez de depender de los carburantes sólidos emisores de carbono).

6.2.1p Nuevos vehículos registrados, definido como la cantidad de vehículos matriculados por primera vez, incluyendo autos y camiones, por año (se usa para extrapolar el consumo energético)

2. Agua y aire

Pregunta general: ¿Cuán sostenible es la calidad del aire y del agua en el entorno urbano?

1	2	3	4	5	6	7	8	9
Crítico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 7

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. Extensiones hídricas en la región urbana.	9
2. El fácil acceso de todos al agua potable con consumo energético mínimo.	9
3. La presencia continua de buena calidad de aire en la región urbana.	9
4. La habitabilidad del clima de la región urbana.	5
5. La huella de carbono del área urbana.	1
6. La elaboración de estrategias de adaptación al cambio climático para el área urbana.	1
7. La transformación del control de la calidad del agua y del aire en estrategias de mejora de la calidad.	1

Anotaciones explicativas de las puntuaciones:

Calidad del aire: Los niveles de concentración PM2.5 en Punta Arenas son muy bajos (alrededor del 20 por ciento de la norma de calidad estándar para las ciudades). La quema de madera (para la calefacción doméstica) es la fuente principal de PM2.5, PM10 y emisiones de CO2 en la Región de Magallanes (Informe País. Estado del Medio Ambiente en Chile, Universidad de Chile, 2016, p. 107).

Habitabilidad del clima urbano: Magallanes es la región más meridional de Chile y se caracteriza por patrones climáticos diversos, que incluyen fenómenos extremos tales como los vientos fuertes y los sistemas frontales frecuentes. Los pronósticos de cambio climático indican que la región sufrirá vientos más fuertes, un aumento de temperatura de entre 2° y 4° C, y una elevación importante en el nivel del mar (Adaptación del sector silvoagropecuario a la variabilidad y el cambio climático en la Región de Magallanes y Antártica Chilena, FAO, 2014, p. 5).

Acceso al agua potable: Según el Ministerio del Medio Ambiente, el 100 por ciento de la población de Magallanes tiene acceso al agua potable (Informe anual 2016, Ministerio del Medio Ambiente). Sin embargo, los expertos locales que participaron en el taller sugieren que el acceso al agua potable es más limitado en las áreas periurbanas (“insatisfactorio” en localidades remotas).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

6.2.1. La calidad del aire, que se define por el promedio anual en las ciudades del nivel de partículas en suspensión (menos de PM2.5 micras, PM2.5) (ponderado por población).

6.2.3. La proporción de aguas residuales, incluyendo las aguas servidas y las de lavado, que hayan sido tratadas de forma segura.

6.2.4. Emisiones de CO2 per cápita y por año.

3. Flora y fauna

Pregunta general: ¿A qué grado llega la biodiversidad a ser sostenible en la región urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 4

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La resistencia de los ecosistemas regionales frente a la urbanización pasada y presente.	4
2. La biodiversidad actual en la región comparada al momento de la primera instauración de la población.	3
3. La tasa de extinción de flora autóctona en la región urbana en los últimos cien años.	3
4. La cobertura arbórea en la región - autóctona o no.	4
5. La viabilidad continua de las especies autóctonas animales y aviares en la región urbana.	4
6. La relación de las personas en la región urbana frente a los animales y aves no domesticados.	5
7. La transformación del control de la flora y fauna en estrategias de mejora de la sostenibilidad.	3

Anotaciones explicativas de las puntuaciones:

Especies invasoras: La población de *Castor canadensis* se duplicó entre 1999 y 2015 y representa una gran amenaza a la fauna autóctona en la zona (Informe País. Estado del Medio Ambiente en Chile, Universidad de Chile, 2015).

Áreas protegidas: La Región de Magallanes contiene el 18.5 por ciento del área total nacional de bosques nativos (Ministerio de Agricultura, Informe regional 2014). La región tiene 7 732 525 hectáreas de áreas protegidas, que representan el 58.45 por ciento del territorio regional y el 10.2 por ciento del territorio nacional (Informe anual 2016, Ministerio del Medio Ambiente).

Estrategias de biodiversidad: Si bien existe la implementación de varias políticas, Magallanes no cuenta con una estrategia regional de protección de la biodiversidad. A nivel nacional, el gobierno chileno lanzó en 2014 una estrategia global sobre la biodiversidad y la adaptación al cambio climático que se alinea con el Convenio sobre la Diversidad Biológica de Naciones Unidas (véase Plan de adaptación al cambio climático en biodiversidad, Ministerio del Medio Ambiente, 2014).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

2.3.1. La proporción de espacio urbano verde (Nota: Este indicador es un apartado de “la proporción de espacio abierto de uso público”).

4. Hábitat y asentamientos

Pregunta general: ¿Cuán bien se adecua, del punto de vista ecológico, el área urbana al entorno en el cual está construida?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 4

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La habitabilidad humana de la topografía regional.	7
2. La cantidad de hábitat original que sigue siendo viable en la región urbana.	3
3. La existencia de espacios naturales - sean de hábitat original o de parques y jardines - como parte integral y de fácil acceso a los vecindarios locales. ⁴¹	5
4. La limitación de la construcción en áreas susceptibles a riesgos naturales tales como las inundaciones y los deslizamientos.	4
5. El uso de materiales adecuados para la construcción. ⁴²	5
6. El reacondicionamiento de edificios e infraestructura para responder a problemas medioambientales.	3
7. La transformación del control del hábitat en el área urbana en sólidas estrategias de conservación.	2

⁴¹“Espacios naturales” quiere decir aquí espacios verdes, sean los mismos de hábitat original o entornos naturales creados, tales como parques.

⁴² En este caso, “materiales adecuados” puede entenderse como materiales adecuados al clima o materiales que son reciclados, de abastecimiento local, o de producción sostenible.

Anotaciones explicativas de las puntuaciones:

Topografía regional: A pesar de que el área urbana es relativamente plana y de fácil acceso, se ve expuesta a riesgos naturales tales como: eventos sísmicos (hubo grandes terremotos en 1879 - 7.3; 1949 - 7.8; 1950 - 7.0); erupciones volcánicas; inundaciones (Punta Arenas sufrió inundaciones en 1971, 1990 y 2012 dada su cercanía al río Las Minas) (Sistema estratégico de riesgos naturales, Gobierno Regional de Magallanes, 2012, p. 4).

Normativa de las áreas construidas: Miembros del grupo de referencia expresaron su preocupación con respecto a la construcción continua en áreas de posible riesgo como, por ejemplo, sobre arroyos y laderas. Estas construcciones no deberían haber sido autorizadas.

Espacios naturales: Los expertos evaluaron que faltan parques públicos y zonas verdes en la ciudad, y que no hay buen mantenimiento de los espacios existentes. Sin embargo, un estudio reciente de la Universidad Católica de Chile encontró que Punta Arenas tiene la mayor proporción de espacios públicos verdes por habitante en el país (la ciudad tiene 12.2 metros cuadrados de espacios verdes por habitante, mientras que el Gran Santiago, por ejemplo, cuenta con 3.7m²/por persona). El estudio también encontró que el 93 por ciento de los habitantes de Punta Arenas tiene muy fácil acceso a los espacios verdes públicos, mientras que el 90 por ciento de los residentes de otras ciudades del país cuentan con muy bajo o ningún acceso (Mesa de áreas verdes. Resumen Ejecutivo. Universidad Católica de Chile, 2017, p.7). Por lo aquí expuesto, la puntuación de la pregunta 3 se cambió de Insatisfactorio a Básico.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

2.3.1. La proporción de espacio abierto que es de uso público, definido como la porción del área construida de las ciudades que es espacio abierto para el uso público de todos - por sexo, edad, y personas con discapacidad.

2.1.2. Uso del suelo, definido como diversidad del uso del suelo por kilómetro cuadrado dentro de una ciudad o área urbana (con equilibrio logrado a través de los usos y actividades complementarias dentro del área local).

2.2.2. Densidad de la población, definida como la población total de la ciudad dividida por el área urbana total en kilómetros cuadrados.

2.3.2. Accesibilidad al espacio público abierto, definido como la proporción de la población de la ciudad (o del área urbana total) que vive (o se ubica) a menos de 400 metros de los espacios públicos abiertos. Los espacios públicos incluyen parques, plazas, zonas verdes recreativas, e instalaciones recreativas (no vías públicas).

5. Forma construida y movilidad

Pregunta general: ¿Son la forma del área urbana y su sistema de transporte propicios para modos de vida sostenible?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La extensión del área urbana, con particular atención al crecimiento de la mancha urbana.	8
2. La facilidad de acceso a los espacios sociales en toda el área urbana a través de distintas formas de transporte interconectado.	9
3. La accesibilidad de los sistemas de transporte de masas en el área urbana, en particular con respecto a las zonas periféricas e informales.	5
4. El grado de dependencia en el automóvil.	1
5. El nivel de incentivación al uso del transporte no motorizado, tales como las bicicletas o el caminar, con la dotación de veredas seguras, redes de ciclovías protegidas, zonas residenciales de baja velocidad, etc.	5
6. La implementación de prácticas de ahorro de energía en el transporte aéreo y marítimo.	3
7. La transformación del control del transporte en estrategias de mejora de la calidad.	1

Anotaciones explicativas de las puntuaciones:

Transporte público: Los taxis compartidos representan la modalidad principal de transporte público en la región (58 por ciento de los vehículos), seguido por los taxis (27 por ciento) y el transporte escolar (6 por ciento). Hay 65 buses que operan en las áreas

urbanas, 61 de ellos en Punta Arenas. Además, hay 55 buses que operan en las áreas rurales y 60 en las rutas interurbanas (Plan de Transporte Público Regional. División de Transporte Público Regional, 2014). Los miembros del Grupo de referencia evaluaron que existe una fuerte dependencia de los automóviles privados en Punta Arenas.

Estrategias de mejora de la calidad: El plan regional de 2014 para el transporte público ofrece una evaluación general de los servicios prestados y resalta algunos proyectos importantes de infraestructura. Sin embargo, la estrategia no tiene en cuenta el impacto ambiental de los modos de transporte actuales. No contiene objetivos de sostenibilidad, tales como el aumento del uso del transporte público o la reducción de las emisiones de gas (véase el Plan de Transporte Público Regional. División de Transporte Público Regional, 2014).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

2.1.1. Conectividad de la vía pública

2.1.1a Densidad de los cruces de calles ciudadanas, definido como la cantidad de intersecciones por kilómetro cuadrado de suelo.

2.1.1b La densidad de calles se define como el número de kilómetros de calles urbanas por kilómetro cuadrado de suelo.

2.1.1c La proporción del área total de superficie urbana dedicada a vías públicas.

2.2.1. Eficiencia del uso del suelo (en contraste al crecimiento de la mancha urbana), definida como la relación entre la tasa de consumo de suelo y la tasa de crecimiento de la población.

4.3.1. Proporción de la población que tiene buen acceso al transporte público desglosado por edad, sexo, y personas con discapacidad.

6. Cuerpo y sustento

Pregunta general: ¿Cuán sostenible es el área urbana con respecto al fomento de la salud física de las personas?⁴³

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 4

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. Salud física general de los habitantes.	3
2. La tasa de mortalidad infantil en el área urbana.	8
3. El nivel de actividad física llevada a cabo por parte de los habitantes del área urbana.	2
4. El higiene de las vías públicas urbanas para toda la población.	7
5. El valor nutricional de los alimentos que generalmente consumen los habitantes.	3
6. La incidencia de agricultura urbana en el área urbana, incluyendo en los hogares de la población.	5
7. La transformación del control de la salud física en estrategias de mejora de la calidad.	5

Anotaciones explicativas de las puntuaciones:

Nivel general de la salud física de los habitantes: Miembros del Grupo de referencia señalaron que la Región de Magallanes tiene una alta incidencia de obesidad y alcoholismo. La falta de actividad física también representa un problema en Magallanes. Un estudio reciente del Ministerio de Salud encontró que Chile tiene una de las tasas más altas de obesidad infantil y juvenil en América latina (promedio nacional de 11.9 por ciento para los niños y 12.4 por ciento para las niñas). [Obesidad y sobrepeso. Un reto creciente a la salud pública en Chile, Ministerio de Salud, 2016]. En la Región de Magallanes, las tasas de obesidad y sobrepeso entre los niños menores de 6 años fueron de 13.6 y 26.4 por ciento respectivamente (por encima de los promedios nacionales de 11.3 y 23.1 por ciento). Además, la región reportó los mayores índices de obesidad entre las mujeres posparto (43.44 per cent) (Vigilancia del estado nutricional de la población bajo control y de la lactancia maternal en el sistema público de salud de Chile, Ministerio de Salud, 2016).

Acceso al cuidado de salud: Según la encuesta Casen 2015, el 95 por ciento de los encuestados en la Región de Magallanes asistieron a un centro o instalación médica en los tres meses anteriores, y el 31.2 por ciento declaró tener dificultades con respecto al acceso a los servicios de salud. El 97 por ciento de la población cuenta con seguro médico (Encuesta Casen 2015, Ministerio de Bienestar Social).

Tasa de mortalidad infantil: La tasa de mortalidad infantil en Punta Arenas es 6.2 (de 1 000) y en la Región de Magallanes es 7.1. Estos datos están por debajo del promedio nacional (7.4 de 1 000) (Ministerio de Salud, 2014) Extraído de <http://reportescomunales.bcn.cl>

⁴³ En el campo ecológico, se enfatiza la salud física. La salud mental se contempla en el campo cultural.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

4.3.2. Tasa de mortalidad por accidentes de tránsito.

5.1.1. Esperanza de vida al nacer.

5.1.3. La mortalidad de los menores de cinco años, definida como la probabilidad de que un niño nacido en cierto año o período muera antes de cumplir cinco años, según las tasas de mortalidad de ese período específicas para la edad.

7. Emisiones y residuos

Pregunta general: ¿Cuán sostenible es la forma en la que el área urbana gestiona las emisiones y los residuos?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 3

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El nivel de emisiones de carbono en el área urbana.	2
2. La cantidad de desechos sólidos generados por el área urbana.	3
3. El tratamiento de las aguas servidas, incluyendo la dispersión posterior del producto tratado.	5
4. El sistema de alcantarillado en el área urbana.	5
5. El compostaje de los desechos domésticos verdes y vegetales.	1
6. El nivel de reciclaje de desechos sólidos en el área urbana.	1
7. La transformación del control de las emisiones y residuos en estrategias de mejora de la calidad.	4

Anotaciones explicativas de las puntuaciones:

La Región de Magallanes produce 566 640 m³ de residuos líquidos industriales por año. La mayoría de las instalaciones industriales en la región no cumplen con la normativa sanitaria y medioambiental vigente (Informe anual 2016, Ministerio del Medio Ambiente). El promedio diario de generación de desechos en Chile es de 1.1kg por persona (396 kg por persona por año). En vista de esto, el gobierno promulgó recientemente la Ley de gestión de residuos, responsabilidad extendida del productor y el fomento al reciclaje. Se espera que la nueva normativa preste el marco nacional para el desarrollo de estrategias de gestión de desechos y reciclaje en el país (Informe anual 2016, Ministerio del Medio Ambiente). Si bien existe una serie de programas de reciclaje en Magallanes, la región no cuenta con una estrategia integral para la gestión de los desechos y el reciclaje.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

6.2.2. Recolección y eliminación de los desechos sólidos, definido como la proporción de desechos sólidos recolectados regularmente y con un vertido final adecuado con relación a los desechos sólidos urbanos totales generados por las ciudades.



Punta Arenas, looking north along Libertador Bernardo O'Higgins from the office of Antarctica 21, a tour operator.

Economía

1. Producción y dotación de recursos

Pregunta general: ¿Cuán sostenible son los patrones generales de producción y el acceso a los recursos en el área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 4

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La prosperidad general del área urbana.	7
2. La capacidad local de fabricación de productos básicos del área urbana.	1
3. El acceso a los recursos primarios necesarios en el área urbana.	4
4. Las comunidades artísticas en el área urbana. ⁴⁴	5
5. El nivel de pericia en diseño en el área urbana. ⁴⁵	1
6. Mano de obra en el área urbana. ⁴⁶	2
7. La transformación del control de las prácticas de producción en estrategias de mejora de la calidad.	6

Anotaciones explicativas de las puntuaciones:

La prosperidad general del área urbana: Magallanes se encuentra en el segundo lugar con respecto al nivel de ingreso doméstico mensual más alto del país (CLP\$1 468 000 /US\$2 194), valor que es significativamente mayor al promedio nacional (CLP\$998 000 / US\$1 498) (Compendio Estadístico 2017, Instituto Nacional de Estadísticas, p. 268).

Producción local: Los sectores principales de la economía regional son la producción industrial (18.9 por ciento del PIB en 2015), los servicios financieros (12.7 por ciento) y la administración pública (11.7 por ciento) (Compendio Estadístico 2017, Instituto Nacional de Estadísticas).

Mano de obra: El 16.2 por ciento de los trabajadores en la región completaron la educación primaria, el 44.4 por ciento la secundaria, y el 39.4 por ciento tiene cualificaciones de nivel terciario (diplomas, licenciaturas o posgrados). El porcentaje de trabajadores con cualificaciones terciarias es sensiblemente más alto en Magallanes y Antofagasta, las dos regiones con el nivel de ingreso doméstico más alto en Chile (Distribución del ingreso en Chile 2010–2015, Instituto Nacional de Estadísticas). Los expertos locales evaluaron que el nivel de pericia en diseño en Punta Arenas es prácticamente inexistente.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

3.1.1. Producto Ciudadano (PIB) per cápita (tiene en cuenta la paridad en el poder de compra), definido como el valor agregado bruto (sueldos más superávit comercial más impuestos menos importaciones), o demanda final total (consumo más inversión más exportaciones), relativa a la población ciudadana total.

2. Intercambio y transferencia

Pregunta general: ¿Cuán sostenible es el ingreso y el paso actual de dinero, bienes y servicios en el área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 5

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La oportunidad para participar en el comercio ético, por ejemplo: en el entorno local, en huertas comunitarias y mercados de productores; o en el mundial, en redes de comercio justo.	3
2. La disponibilidad de los productos básicos, incluyendo su distribución por canales no comerciales o de bajo costo.	1
3. La redistribución justa de los recursos económicos con procesos tales como el sistema impositivo.	5

⁴⁴ La frase “comunidades artísticas” puede entenderse como inclusiva de diversos artistas, desde músicos y pintores a trabajadores artesanos.

⁴⁵ “Pericia en diseño” puede incluir desde arquitectos y planificadores a diseñadores gráficos, en joyería, etc.

⁴⁶ “Mano de obra” incluye tanto los recursos de trabajo manual como intelectual; desde artesanos y obreros a doctores e ingenieros.

4. La resiliencia de las relaciones de comercio exterior, incluyendo por medio de acuerdos bilaterales entre ciudades.	8
5. La prestación de ayuda material y apoyo social a las personas necesitadas más allá del área urbana inmediata.	6
6. Los niveles de deuda de distintos sectores del área urbana, tanto público como privado.	3
7. La transformación del control financiero en estrategias de mejora de la calidad.	8
Anotaciones explicativas de las puntuaciones:	
En 2016, las exportaciones totales de la región aumentaron en 5.6 por ciento (con respecto a 2014), llegando a US \$510.3 millones. El sector industrial encabezó las exportaciones (92.6 por ciento de las exportaciones) (Compendio estadístico 2017, Instituto Nacional de Estadísticas).	
Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación	
3.1.2. Tasa de crecimiento por trabajador, definida como la tasa anual de crecimiento del PIB real de la ciudad por persona empleada.	

3. Contabilidad y reglamentación

Pregunta general: ¿Cuán rigurosos son los marcos contables y normativos en el área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 4

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La transparencia en el gasto público.	5
2. La rigurosidad de los sistemas de auditoría financiera que se aplican en el área urbana. ⁴⁷	5
3. Cuán adecuada es la regulación de los bienes y servicios. ⁴⁸	2
4. La aplicación coherente de la reglamentación del uso del suelo.	3
5. La regulación adecuada de los sistemas financieros que afectan al área urbana.	6
6. La regulación adecuada de las prácticas laborales, incluyendo consideraciones relativas a la salud y seguridad.	5
7. La transformación del control de las prácticas regulativas en estrategias de mejora de la calidad.	4

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

3.3.1. Recaudación fiscal basada en la ciudad (como porcentaje de los ingresos totales de la ciudad). Esto tiene que ver con la capacidad del gobierno municipal para gestionar y recaudar sus recursos.

4. Consumo y uso

Pregunta general: ¿Cuán sostenible son los patrones de consumo actuales del área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La reutilización de productos, incluyendo por medio del intercambio personal y las tiendas de segunda mano.	2
2. La elaboración de respuestas a problemas de seguridad alimentaria y de vulnerabilidad a la escasez estacional de los alimentos.	6
3. La disponibilidad a largo plazo para todos de los productos y servicios considerados necesarios para el buen vivir.	6
4. La disponibilidad a largo plazo para todos de los servicios básicos, tales como el agua, la electricidad y el gas.	8

⁴⁷ La consideración de esta pregunta debería tomar en cuenta los sistemas de auditoría tanto públicos como privados.

⁴⁸ Tanto en este como en otros casos, la noción de "ser adecuado" debe aplicarse con respecto al bien general público, que incluye a los pobres y vulnerables, y no a los resultados pertinentes solo a un grupo de interés.

5. La capacidad de los lugareños para responder a problemas del pico petrolero, incluyendo el aumento de costes.	8
6. La veracidad de la publicidad local a la hora de dar información sobre los productos de consumo.	8
7. La transformación del control del consumo en estrategias para fomentar el buen consumo.	8

Anotaciones explicativas de las puntuaciones:

Servicios básicos: Hay una amplia disposición de los servicios básicos en la Región de Magallanes. El agua potable tiene una cobertura del 100 por ciento, y el alcantarillado del 98.45 por ciento. Sin embargo, el consumo regional de agua potable por persona viene aumentando de forma constante en los últimos años, aumentando un 10 por ciento entre 2012 y 2016 (Compendio estadístico 2017, Instituto Nacional de Estadísticas, p. 642).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

3.3.2. El gasto de inversión per cápita, definido como la inversión en activos ciudadanos tales como vías públicas, educación, salud, energía, vivienda, etc, como proporción de la población total.

5. Trabajo y bienestar

Pregunta general: ¿Cuán sostenible son las condiciones laborales en el área urbana?

1	2	3	4	5	6	7	8	9
Crítico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. Las diversas posibilidades de sustento en el área a disposición de los que poseen las habilidades apropiadas.	7
2. La posibilidad de todos de tener vocaciones productivas significativas.	6
3. El acceso equitativo para acceder al trabajo seguro en el área relativo a las diferencias de género, edad y origen étnico.	4
4. La capacidad de la fuerza laboral para trabajar de forma productiva.	2
5. La seguridad de los trabajadores.	8
6. La amplitud de los procesos generales del sistema de bienestar en el área urbana. ⁴⁹	7
7. La transformación del control de las prácticas laborales en estrategias para potenciar las buenas condiciones de trabajo.	6

Anotaciones explicativas de las puntuaciones:

La igualdad de género y el trabajo: En 2016, Chile fue uno de los peor clasificados entre los países de la OCDE con respecto a la brecha salarial por género (trigésimo cuarto entre 38 países). (Extraído de: <http://www.oecd.org>). Según el Instituto Nacional de Estadísticas (INE), en 2016 a las mujeres se les pagó menos que a los hombres en todos los sectores económicos en todas las regiones geográficas (la brecha salarial promedio fue de 31.1 por ciento). Además, las mujeres estaban subrepresentadas en puestos gerenciales y en los consejos directivos (solo el 30 por ciento de los puestos) (Género e ingresos 2016, Instituto Nacional de Estadísticas). Sin embargo, la Región de Magallanes tuvo la menos brecha salarial por género en Chile (20.2 por ciento) (Género e ingresos 2016, Instituto Nacional de Estadísticas, p. 4).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

3.2.1. La relación de empleo a población, definida como la proporción de la población del país de edad laboral que tiene empleo.

3.2.1p Tasa de desempleo, por sexo, edad y personas con discapacidad.

3.2.2. Proporción de empleo informal en sectores no agrícolas, por sexo.

3.2.3. Empleo en el sector manufacturero como proporción del empleo total.

3.2.3p Empleos en la fabricación de materiales de construcción a nivel local. El término “materiales de construcción disponibles a nivel local” se refiere a materiales cuyo ciclo vital íntegro (incluyendo todas las fases de la cadena productiva: 1. extracción de la materia prima, 2. fabricación de los productos de construcción, 3. venta y 4. uso de los productos de construcción, 5. reciclaje/ final de vida) se lleva a cabo dentro de la misma región. (repetir)

⁴⁹ “Bienestar” se define de forma amplia para abarcar, por una parte, a la seguridad social, las pensiones, y la asistencia gubernamental en especie a los individuos y, por otra, la ayuda que surge de las redes sociales, la filantropía y las relaciones personales.

6. Tecnología e infraestructura

Pregunta general: ¿Hasta qué punto es la infraestructura básica en el área urbana adecuada para apoyar una amplia gama de necesidades?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La idoneidad de las tecnologías y la infraestructura pública para fomentar el desarrollo a largo plazo del área urbana.	6
2. La robustez de los sistemas de almacenamiento de información a disposición de las personas en el área urbana.	7
3. La adopción de las nuevas tecnologías en el transporte, tales como los vehículos híbridos y los sistemas inteligentes de transporte.	5
4. La calidad del patrimonio inmobiliario, de uso comercial o de vivienda, en el área urbana.	7
5. La dotación de recursos del sistema educativo con tecnologías adecuadas e infraestructura de fácil acceso para los habitantes.	5
6. La dotación de recursos del sistema de salud con tecnologías adecuadas e infraestructura de fácil acceso para los habitantes.	8
7. La transformación del control del uso de la tecnología en estrategias para mejorar la aplicación de la misma.	7

Anotaciones explicativas de las puntuaciones:

Sistemas de almacenamiento de información: Actualmente no existen centros de datos en Punta Arenas. Sin embargo, se ha anunciado planes para construir un nuevo centro de datos en la ciudad [CTR construye un data center en Chile (9 de octubre de 2017, Data Center Dynamics. Extraído de <https://www.dcd.media>).

Acceso al cuidado de salud: Según la encuesta Casen 2015, el 95 por ciento de los encuestados en la Región de Magallanes asistieron a un centro o instalación médica en los tres meses anteriores, y el 31.2 por ciento declaró tener dificultades con respecto al acceso a los servicios de salud. El 97 por ciento de la población cuenta con seguro médico (Encuesta Casen 2015, Ministerio de Bienestar Social).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

3.3.2p El monto de inversión en infraestructura, como proporción de la inversión total urbana. "Infraestructura" se define como las estructuras físicas y los servicios esenciales que conectan a la sociedad y permiten su operación ordenada.

7. Riqueza y distribución

Pregunta general: ¿Es sostenible la riqueza del área urbana? ¿Se distribuye de forma que beneficia a todos y todas?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El uso público de la riqueza del área urbana para máximo beneficio social de todos y todas.	8
2. El mantenimiento de la riqueza social heredada del área urbana, por ejemplo: el mantenimiento de los edificios antiguos o los espacios públicos para maximizar el beneficio social.	7
3. La equidad relativa de los niveles salariales de los distintos grupos, por categoría laboral pero también por género, edad, origen étnico, etc.	3
4. La asequibilidad de la vivienda local para todos y todas.	6
5. La equidad relativa de la riqueza acumulada de los habitantes del área urbana.	6
6. La efectividad de los procesos de redistribución de la riqueza en el área urbana.	6
7. La transformación del control de la acumulación de la riqueza en estrategias para mejorar los beneficios sociales para todos y todas.	7

Anotaciones explicativas de las puntuaciones:

El porcentaje de la población que vive por debajo del umbral de pobreza en la Región de Magallanes disminuyó notoriamente entre 1998 (12 por ciento) y 2015 (4.4 por ciento). Magallanes tiene la tasa de pobreza más baja en Chile y está muy por debajo del promedio nacional (11.7 por ciento en 2015). (Informe País. Estado del medio ambiente en Chile, Universidad de Chile, 2015).

El coeficiente de Gini para la Región de Magallanes fue 0.5 en 2009 (Estrategia de desarrollo regional 2012-2020).

Vivienda: El índice de hacinamiento de la vivienda en Punta Arenas es 13.9 por ciento (13.1 de hacinamiento moderado y 0.8 por ciento de hacinamiento crítico). (Encuesta Casen 2015, Ministerio de Bienestar Social).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

4.1.1 La proporción de personas que habitan hogares a los que le falta al menos una de las siguientes cinco condiciones: acceso al agua potable mejorada; acceso a instalaciones sanitarias mejoradas; disponibilidad de suficiente área habitable (sin hacinamiento); acceso a viviendas duraderas; seguridad de tenencia.

4.1.2 Asequibilidad de la vivienda, definido como el número de hogares cuyos costos de vivienda superan el 30 por ciento del ingreso bruto, expresado como porcentaje de todos los hogares en una ciudad.

5.2.1 Índice de pobreza, definida como la proporción de la población que vive por debajo de la línea internacional de pobreza de US\$1.25 por día (o la cantidad requerida para cumplir las necesidades básicas), por sexo, edad, situación laboral y ubicación geográfica (urbana/rural).

5.2.2 Tasas de crecimiento de los gastos de los hogares o del ingreso per cápita entre el 40 por ciento más pobre de la población y la población total.

5.2.2p Coeficiente de Gini Un coeficiente de Gini de cero representa la igualdad perfecta, donde todos los valores son iguales, o sea: donde todos y todas tienen el mismo ingreso. Un coeficiente de Gini de uno (o 100 por ciento) representa la desigualdad máxima entre los valores, o sea: una ciudad donde una persona tiene todo el ingreso.



Elias Barticevic, Punta Arenas,
presenting at an Antarctic Forum.

Política

1. Organización y gobierno

Pregunta general: ¿Cuán bien funciona el sistema actual de gobierno para maximizar los beneficios para todos y todas?⁵⁰

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La legitimidad política de los distintos niveles gubernamentales pertinentes al área urbana.	6
2. La capacidad de los líderes de los distintos tipos de gobernanza pertinentes al área urbana.	4
3. La visión que proyectan los niveles de gobierno correspondientes con respecto a la gestión positiva de la forma de la región urbana, por ejemplo: en relación con la gestión del crecimiento urbano.	6
4. La capacidad del personal administrativo en los distintos niveles burocráticos.	4
5. La autoridad para implementar políticas de los distintos niveles de gobernanza.	5
6. La transparencia de los procesos de toma de decisiones.	7
7. La transformación del control de las prácticas administrativas en estrategias para mejorar la calidad de la gobernanza.	6

Anotaciones explicativas de las puntuaciones:

La profesionalización del personal municipal: Un estudio reciente llevado a cabo por la Asociación de Municipalidades de Chile encontró que el 31.7 por ciento de la plantilla de los municipios de Magallanes son profesionales. Este porcentaje es levemente superior que el promedio nacional (29.36 por ciento). Una nueva normativa que regula a los municipios, la ley de Plantas Municipales de 2016, tiene como cometido la mejora de la capacidad gestora y la profesionalización municipal (Informe nacional de capital humano municipal, AMUCH, 2016, p. 41).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

1.1.1. El nivel de desarrollo e implementación de una política urbana nacional o de planes regionales de desarrollo que (a) respondan a las dinámicas de la población, (b) aseguren el desarrollo territorial equilibrado, y (c) aumenten el espacio fiscal local.

2. Derecho y administración de justicia

Pregunta general: ¿Cuán bien funciona el sistema jurídico dominante?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La protección de los derechos humanos en el área urbana.	6
2. Orden público del área urbana.	8
3. El grado de respuesta de los habitantes locales a las exigencias legales.	6
4. El grado en el que se trata a todos los habitantes como seres iguales frente a la ley, incluyendo la articulación de los sistemas jurídicos complementarios tales como el derecho consuetudinario o tradicional.	7
5. La imparcialidad y circunspección del sistema jurídico dominante.	5
6. La idoneidad de las decisiones judiciales en relación con los distintos niveles de penalización y castigo.	4
7. La transformación del control de las prácticas legales en estrategias para mejorar la calidad de la administración jurídica.	3

⁵⁰ En este caso, "sistema actual de gobierno" incluye el nivel nacional, regional, municipal y local.

Anotaciones explicativas de las puntuaciones:

El Informe anual sobre derechos humanos de 2017, publicado por la Universidad Diego Portales, plantea ciertas inquietudes con respecto al trato jurídico de casos de violaciones de derechos humanos.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

5.4.2. El índice de robos, definido como el número de robos denunciados que afectan a las personas, las viviendas y al comercio; a los vehículos y motocicletas, expresado en robos por cada 100 000 habitantes.

5.4.1. La tasa de homicidios, definido como el número de víctimas de homicidio doloso por cada 100 000 habitantes, por sexo y edad.

3. Comunicación y crítica

Pregunta general: ¿Cuán sostenible es el acceso a la comunicación social en el área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El grado de libertad positiva para la expresión política en el área urbana.	8
2. La variedad de periódicos, emisoras y sistemas de comunicaciones públicas que circulan información de interés de las personas que viven en el área urbana.	7
3. La proporción de hogares con acceso abierto a los medios de comunicación, incluyendo radio, televisión, internet y otras redes de comunicación social.	9
4. La calidad del análisis político público, tanto de tipo convencional como alternativo, que es de fácil acceso en el área urbana y que contiene temas de interés local.	5
5. La aceptación de la región urbana a que se lleve a cabo y sea oída la protesta política no violenta.	8
6. El grado de respeto a la privacidad por parte de los recolectores públicos y privados de información.	4
7. La transformación del control de las prácticas mediáticas en estrategias para mejorar la calidad de la comunicación de los medios.	4

Anotaciones explicativas de las puntuaciones:

No se documentaron actos significativos de censura o de violación de la libertad de expresión.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

4.2.2. La proporción de personas que utilizan internet.

4. Representación y negociación

Pregunta general: ¿De qué calidad es la representación política de los ciudadanos del área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 3

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La afiliación activa de los habitantes a organizaciones no gubernamentales y grupos de interés: sindicatos, asociaciones profesionales, clubes, afiliaciones religiosas, etc.	3
2. La participación activa de los habitantes locales en los procesos políticos del área urbana.	4
3. El poder de los habitantes locales para afectar a los procesos de toma de decisiones políticas pertinentes al área urbana.	3
4. La disponibilidad de los representantes municipales para atender las consultas de los residentes.	2

5. La posibilidad activa de negociación civil entre grupos con intereses distintos, tales como los sindicatos y las empresas.	4
6. La impugnación activa y legítima del poder y los puestos políticos.	3
7. La transformación del control de la participación ciudadana en estrategias para mejorar la calidad de la participación pública.	5
Anotaciones explicativas de las puntuaciones:	
La participación cívica y política: En la Región de Magallanes se registraron los niveles de participación electoral más bajos de Chile (solo el 31.32 por ciento). En Punta Arenas, la participación electoral fue aún más baja (27.87 por ciento). Puede que los bajos índices de participación sean el resultado de nuevas normativas implementadas en octubre de 2012 que dieron comienzo al voto voluntario a nivel municipal (Asociación de Municipalidades de Chile, 2013).	
Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación	
1.2.2. Nivel de participación del gobierno municipal, ONG y la sociedad civil en la toma de decisiones y planificación urbana.	

5. Seguridad y acuerdos

Pregunta general: ¿Cuán segura es el área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El grado de seguridad personal en lo relativo a problemas de seguridad humana, tales como la seguridad alimentaria, los desastres naturales, las crisis económicas o las amenazas militares.	8
2. La seguridad física de los lugares de trabajo.	8
3. El grado de seguridad personal con respecto a la violencia intrafamiliar y a los conflictos callejeros comunes.	3
4. La disposición de refugio para los habitantes del área urbana que no tienen vivienda, o para las personas que escapan de circunstancias difíciles tales como la violencia intrafamiliar.	5
5. La disponibilidad de apoyo activo para los inmigrantes desde el exterior del área urbana que escapan el conflicto, la persecución o la pobreza.	5
6. La disposición de procesos asequibles de cobertura de seguros respaldados por garantías formales.	6
7. La transformación del control de las amenazas a la seguridad en estrategias para mejorar la calidad de la seguridad personal de todos y todas.	4

Anotaciones explicativas de las puntuaciones:

La seguridad personal con relación a los desastres naturales: Una evaluación de riesgo llevada a cabo en 2012 con respecto a los fenómenos naturales en la Región de Magallanes identificó a varias áreas expuestas a las inundaciones, incluyendo algunas áreas colindantes a Punta Arenas. El estudio señaló que la ciudad es susceptible a eventos sísmicos de magnitud 7 o más (Sistema estratégico de riesgos naturales, Gobierno Regional de Magallanes, 2012). Nota: El estudio se centró en el “riesgo” posible y evaluó las vulnerabilidades de la región. Esto no significa que Magallanes esté altamente expuesto a los “desastres naturales”.

La delincuencia y la seguridad personal: Una encuesta publicada en 2016 muestra que el 30.7 por ciento de los encuestados en Punta Arenas declaró haber sido víctima de un delito. A pesar de estos resultados, Punta Arenas registró los índices más bajos de delincuencia en Chile (Fundación Paz Ciudadana 2016). Un informe elaborado por la Asociación de Municipalidades de Chile-AMUCH, también reportó que la Región de Magallanes tenía los menores índices delictivos en Chile (Índice de nivel socio-delictual de nivel comunal en Chile, Asociación de Municipalidades de Chile, 2016).

Violencia intrafamiliar: En 2016, el número de casos jurídicos de violencia intrafamiliar en la Región de Magallanes fue de 34 por cada 1 000 habitantes (el menor índice en todo el país). En el mismo año, en la región se registraron 655 casos de maltrato o abuso de niños y adolescentes (Informe anual de justicia, Instituto Nacional de Estadísticas, 2016). Si bien el número de casos reportados en Magallanes está por debajo del promedio nacional, una encuesta reciente muestra que los casos de violencia intrafamiliar en Magallanes van en aumento (véase la Tercera encuesta nacional de violencia intrafamiliar contra la mujer y delitos sexuales, Centro de derechos humanos, Universidad Diego Portales, 2018, p. 5).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

6.1.1. La adopción e implementación de estrategias locales de reducción de riesgos de desastres (de acuerdo con el marco de Sendai para la reducción del riesgo de desastres 2015-2030).

6.1.2. Población afectada por fenómenos peligrosos, definidos como el número de muertes, personas desaparecidas y personas afectadas por los desastres por cada 100 000 personas en una ciudad.

5.4.3. La proporción de mujeres (de 15 años de edad o mayores) sujetas al acoso físico o sexual en los espacios públicos en los últimos 12 meses, por autor y lugar del hecho. (repetir)

6. Diálogo y reconciliación

Pregunta general: ¿Es posible el diálogo significativo entre grupos con grandes diferencias políticas en el área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 5

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El reconocimiento de las diferencias de identidad, incluyendo — en particular — el reconocimiento de los habitantes originales de la región urbana.	5
2. La existencia de procesos activos de negociación con respecto a las distintas interpretaciones de los hechos pasados y de las historias de conflicto.	5
3. La existencia de procesos activos - formales e informales - para gestionar los conflictos entre comunidades que se distinguen por diferencias étnicas, raciales, religiosas, de clase, género o sexo.	4
4. El grado de confianza social en otras personas.	6
5. La posibilidad de celebrar rituales y procesos de recuerdo y renovación.	6
6. La existencia de procesos - formales e informales - para dar la bienvenida a los recién llegados.	4
7. La transformación del control de las tensiones políticas en estrategias para mejorar los procesos de reconciliación.	5

Anotaciones explicativas de las puntuaciones:

Hay una serie de políticas implementadas a nivel nacional y regional, incluyendo la del procesamiento judicial de los responsables de crímenes durante el régimen militar (véanse los informes anuales de 2013, 2014 y 2015 preparados por el Observatorio de justicia transicional, Universidad Diego Portales).

Pueblos indígenas: Si bien hay canales formales para la participación y consulta con los pueblos indígenas, los conflictos étnicos han aumentado en la Patagonia chilena en los últimos años, en particular en las regiones de La Araucanía y del Bío Bío. En Magallanes, una propuesta gubernamental reciente sobre la protección de la biodiversidad suscitó la reclamación de pueblos indígenas por no haber sido consultados. A partir de la denuncia, el gobierno comenzó un proceso consultivo (véase “El proyecto del Servicio de Biodiversidad y Áreas Protegidas y el deber de consulta a los Pueblos indígenas - declaración pública”. Extraído de <http://www.mapuexpress.org>; Véase también Sistematización del proceso de consulta a Pueblos indígenas, Ministerio del Medio Ambiente).

Identidad sexual: Según el Informe anual de derechos humanos 2017 (Centro de derechos humanos, Universidad Diego Portales), el reconocimiento de la diversidad sexual en Chile sigue siendo ámbito de seria preocupación, en particular con respecto a la familia LGBT.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

No aplica.

7. Ética y responsabilidades públicas

Pregunta general: ¿Cuán ética es la vida social en el área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 3

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El basar políticas municipales en principios éticos claramente declarados.	2
2. La responsabilidad pública de figuras públicas poderosas, por ejemplo: empresariales, mediáticos, y sindicalistas.	4
3. El grado de integridad que se demuestra en las transacciones del día a día en la vida pública y privada.	3
4. El rol activo de las dependencias y organizaciones de integridad pública y anticorrupción.	3
5. La posibilidad de tener un debate público significativo sobre los principios éticos y su interpretación.	3
6. La disposición de procesos para responder de forma consecuente frente a las faltas de responsabilidad.	3
7. La transformación del control de la corrupción en estrategias para mejorar los procesos que competen a la integridad.	4

Anotaciones explicativas de las puntuaciones:

Transparencia y responsabilidades públicas: Chile está en el puesto 24 (puntuación 66/100) de 176 países en el Índice de Percepción de la Corrupción elaborado por Transparency International (Transparency International 2017). Se ha implementado una serie de iniciativas con respecto a temas de transparencia y el acceso a la información a nivel nacional (incluyendo la Ley de Transparencia promulgada en agosto de 2008). El Consejo para la Transparencia (creado en 2008 por la Ley de Transparencia) publica regularmente los resultados de estudios sobre la confianza ciudadana en los organismos públicos. En los últimos años, el estudio ha mostrado un frágil nivel de confianza cívica en los organismos públicos que va en deterioro (véase la VIII Encuesta Nacional de Transparencia, Consejo para la Transparencia, 2017).

Miembros del Grupo de referencia consideran que existen múltiples mecanismos para controlar la responsabilidad de los organismos públicos. Sin embargo, es difícil controlar la responsabilidad de otros tipos de actores. También se dijo que la participación ciudadana en el proceso presupuestario y de gastos públicos es muy limitada en la ciudad.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

1.1.2. Grado de incorporación de los principios de planificación urbana en el proceso de gestión de la ciudad.



Punta Arenas, postcards on sale reproducing early photographs of prior Indigenous life.

Cultura

1. Identidad y participación

Pregunta general: ¿Hasta qué punto tiene el área urbana una identidad cultural positiva que une a la gente por encima de los varios puntos de diferencia?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La diversidad cultural activa de los distintos grupos y comunidades locales.	6
2. El sentido de pertenencia e identificación con el área local en su totalidad, de forma que se generan conexiones por encima de las diferencias entre los grupos y comunidades.	9
3. La tolerancia y el respeto por los distintos grupos lingüísticos y étnicos en el área urbana.	5
4. La tolerancia y el respeto por las distintas religiones y comunidades de fe en el área urbana.	8
5. La posibilidad que tienen los recién llegados al área urbana de establecer y mantener redes personales o grupos de afinidad con los habitantes actuales.	4
6. El sentido de hogar y lugar.	7
7. La transformación del control de las relaciones comunitarias en estrategias para mejorar el sentido de identidad y compromiso.	4

Anotaciones explicativas de las puntuaciones:

Sentido de pertenencia e identificación con el área local: La Región de Magallanes se caracteriza por un fuerte sentido de identidad, que a menudo se atribuye a tanto su situación geográfica excepcional (aislada) y las condiciones históricas de su colonización (una serie de olas migratorias) (Informe regional 2015, Consejo Nacional de la Cultura y las Artes).

Diversidad y etnias: las personas indígenas representan el 20 por ciento de la población regional (19.1 por ciento mapuches, 0.7 kaweskar, 0.1 por ciento aimara y 0.1 por ciento yamana). Hay veintidós asociaciones indígenas que representan a diez comunidades autóctonas (Informe regional 2015, Consejo Nacional de la Cultura y las Artes). Los pueblos indígenas han sido consultados en el desarrollo de programas de políticas nacionales y regionales (véase, por ejemplo, Consulta a pueblos indígenas 2017, Ministerio del Medio Ambiente).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

No aplica.

2. Creatividad y ocio

Pregunta general: ¿Cuán sostenible son las iniciativas (re)creativas en el área urbana, incluyendo las actividades deportivas y de ocio creativo?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 5

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El grado de participación y la afición por las artes; desde la pintura a la historia oral.	5
2. El nivel de implicación en actividades de interpretación como la música, danza y el teatro, sea como participantes o como espectadores.	4
3. El nivel de creatividad e innovación cultural.	4
4. El grado de apoyo para los eventos culturales, por ejemplo: festivales y festejos públicos.	6
5. El nivel de participación como espectadores o participantes en el deporte o las actividades físicas.	7

6. La dedicación de tiempo y energía al ocio creativo.	5
7. La transformación del control de las iniciativas creativas en estrategias para mejorar la participación.	4
Anotaciones explicativas de las puntuaciones:	
Participación e implicación en actividades culturales: En general, los miembros del Grupo de referencia evaluaron que el nivel de participación en las artes y las actividades culturales es relativamente baja, pero también se señaló que la ciudad se esfuerza notoriamente en fomentar la participación. La Región de Magallanes tiene cinco salas de cine (651 butacas). En 2015, 217 868 espectadores asistieron al cine. Hubo 18 856 asistentes a espectáculos de artes escénicas en la región, la mayoría de los cuales asistieron a espectáculos gratuitos de danza regional o folclórica. Además, 64 025 personas asistieron a eventos deportivos en 2015. Hay 65 radiodifusoras en el área regional (58 FM y 7 AM) (Compendio estadístico 2017, Instituto Nacional de Estadísticas).	
Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación	
No aplica.	

3. Memoria y proyección a futuro

Pregunta general: ¿Cuál es la habilidad del área urbana para hacer frente a su historia pasada con relación a proyecciones de visiones de posibles futuros?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El grado de respeto hacia las tradiciones del pasado y la comprensión de las diferencias.	7
2. La protección de sitios patrimoniales y lugares sagrados.	6
3. La manutención de monumentos, museos y registros históricos.	6
4. El reconocimiento activo de costumbres e historias autóctonas.	5
5. El sentido de esperanza por un futuro positivo para el área urbana en su totalidad.	6
6. El nivel de diálogo público que explora activamente los futuros posibles.	4
7. La transformación del control de temas del pasado y del futuro en estrategias para mejorar la participación y el compromiso positivo.	6

Anotaciones explicativas de las puntuaciones:

Patrimonio: En Magallanes se ubican el 4.7 por ciento del total de monumentos construidos de valor patrimonial de Chile. La mayoría de estos monumentos y sitios se vinculan al patrimonio autóctono de los pueblos indígenas que habitan (y habitaron) la región, además de a la historia de marineros, aventureros y pioneros que llegaron a la región (Consejo de Monumentos Nacionales de Chile, 2017). Los miembros del Grupo de referencia recalcaron la riqueza de la historia local.

Varios de los monumentos históricos e iniciativas culturales en la Región de Magallanes están vinculadas a los abusos de derechos humanos perpetrados durante la dictadura (tales como el Museo de la Memoria y la Casa de los Derechos Humanos en Punta Arenas) y a la represión militar de los sindicatos y el movimiento obrero (tales como la revuelta obrera de 1919) Si bien esto indica un pasado trágico, es importante resaltar que es un pasado que ha sido reconocido.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

1.2.1. Gasto total (público y privado) per cápita dedicado a la preservación, protección y conservación del patrimonio cultural y natural, por tipo de patrimonio (cultural, natural, mixto y con designación del Centro del Patrimonio Mundial); el nivel de inversión gubernamental (nacional, regional y local/municipal); el tipo de gasto (gasto operativo/inversión); y el tipo de financiación privada (donaciones en especie, sector privado sin fines de lucro y patrocinio).

4. Creencias y sentidos

Pregunta general: Los residentes del área urbana, ¿tienen un fuerte sentido de propósito y significado?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 7

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El nivel de participación informada en las iniciativas culturales del área urbana.	6
2. Las posibilidades de discusión y debate en torno a ideologías contrarias.	8
3. El nivel de respeto en la cual se basan las decisiones tomadas en nombre de la población del área urbana.	7
4. El sentido de la vida para la población local.	8
5. El punto hasta el cual las personas de diferentes creencias y espiritualidades se sienten cómodas al practicar sus rituales, aún cuando sus creencias no forman parte de la cultura dominante.	9
6. La posibilidad de expresar pasiones públicamente en el área urbana sin llegar al conflicto negativo.	6
7. La transformación del control de ideas y debates en estrategias para mejorar la implicación de la gente.	6

Anotaciones explicativas de las puntuaciones:

Los miembros del Grupo de referencia expresaron que en general con respecto a todas las preguntas sobre creencia y sentimiento, los ciudadanos de Punta Arenas tienen un sentido muy satisfactorio de propósito y significado.

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

No aplica.

5. Género y generaciones

Pregunta general: ¿Hasta qué punto hay bienestar de género y generaciones en los distintos grupos?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 4

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La igualdad de mujeres y hombres en la vida pública y privada.	4
2. La expresión positiva de la sexualidad, sin el riesgo de acoso o violación.	5
3. La corresponsabilidad de hombres y mujeres en la crianza de los niños.	4
4. La disponibilidad de guarderías infantiles en el área urbana – formales o informales, públicas o privadas.	6
5. La implicación de la juventud en la vida del área urbana.	5
6. La disponibilidad de centros para el cuidado de adultos mayores en el área urbana – formales o informales, públicos o privados.	3
7. La transformación del control de las relaciones de género y entre generaciones en estrategias para mejorar la implicación de la gente.	4

Anotaciones explicativas de las puntuaciones:

La igualdad de género y el trabajo: La tasa de empleo de las mujeres en la Región de Magallanes es relativamente baja (44.6 por ciento), si bien es superior al promedio nacional (41.2 por ciento). Al mismo tiempo, el salario medio de las mujeres en Magallanes es significativamente menor que el de los hombres (al rededor de 40 por ciento más bajo), a pesar de ser más altos que las medias nacionales (Informe regional 2015, Consejo Nacional de la Cultura y las Artes).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

5.3.2. Proporción de escaños ocupados por mujeres en los parlamentos nacionales y los gobiernos locales.

5.3.2p Mujeres en puestos gerenciales, incluyendo a la administración pública y a las empresas del sector privado.

5.3.3. Proporción de mujeres en el mercado labor.

5.4.3. La proporción de mujeres (de 15 años de edad o mayores) sujetas al acoso físico o sexual en los espacios públicos en los últimos 12 meses, por autor y lugar del hecho. (repetir)

6. Investigación y aprendizaje

Pregunta general: ¿Cuál es el grado de sostenibilidad de los procesos formales e informales de aprendizaje en el área urbana?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 5

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. La accesibilidad de los centros activos de descubrimiento – desde institutos de investigación formales hasta lugares de descubrimiento lúdico para niños.	3
2. La participación activa de las personas en el área urbana en la deliberación y en el debate sobre ideas.	5
3. La accesibilidad de los centros activos de investigación social – formales e informales – desde aquellos dedicados a la investigación científica hasta la investigación subjetiva y espiritual.	5
4. La participación activa de las personas en la educación formal e informal, a través de géneros, generaciones, etnias y diferencias de clase.	8
5. La existencia de culturas locales que producen contenido escrito – desde filosófico y científico hasta literario y personal.	6
6. La dedicación de tiempo a la reflexión cuidadosa dentro de los distintos procesos educacionales, formales o informales.	5
7. La transformación del control de las prácticas de educación en estrategias de mejora de la calidad.	5

Anotaciones explicativas de las puntuaciones:

La Región de Magallanes tiene un índice de analfabetismo bajo (1.6 por ciento en 2011), muy inferior al promedio nacional (3.3 por ciento en 2011). La duración media de la escolaridad en Magallanes es 10.8 años (el promedio nacional es 10.6). El porcentaje de la población que ha completado la educación secundaria es 57.8 por ciento (levemente superior a la media nacional de 54.9 por ciento).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

5.1.2. Índice de alfabetismo adulto, definido como el porcentaje de la población con al menos 15 años de edad que puede leer y escribir un texto relacionado a su vida diaria.

5.3.1. Proporción de jóvenes (entre 15-24 años de edad) que no están escolarizados, empleados o en un programa de formación.

7. Salud y bienestar

Pregunta general: ¿Cuál es el nivel general de salud y bienestar entre los distintos grupos de residentes?

1	2	3	4	5	6	7	8	9
Critico	Malo	Muy Insatisfactorio	Insatisfactorio	Basico	Satisfactorio	Muy Satisfactorio	Bueno	Exelente

Puntuación general 6

Preguntas particulares

¿Cuán sostenible son los siguientes aspectos del área urbana?

1. El sentido de control que las personas tienen en el área urbana con respecto a la integridad física y el bienestar.	7
2. El nivel de conocimiento que tienen las personas en el área urbana sobre temas básicos de salud.	6
3. La disponibilidad de profesionales liberales o líderes comunitarios para apoyar a las personas en tiempos de penuria, estrés o dolor.	4
4. La capacidad del área urbana para cumplir las expectativas razonables que tienen los ciudadanos sobre el cuidado sanitario o de acompañamiento psicológico.	5
5. La participación de las personas en prácticas que promueven el bienestar.	6
6. La riqueza cultural de la gastronomía y la buena comida.	6
7. La transformación del control de las prácticas de salud y bienestar en estrategias de mejora de la calidad.	6

Anotaciones explicativas de las puntuaciones:

El nivel de conocimiento que tienen las personas sobre temas básicos de salud: El porcentaje de niños menores de un año que en Magallanes participaron en el “programa niño/a sano/a” (prueba nacional de salud para los niños) fue 73.9 por ciento. El porcentaje de participación de los niños entre los cero y nueve años fue 37.6 por ciento (Encuesta Casen 2015, Ministerio de Bienestar Social).

El porcentaje de mujeres de al menos 35 años que se hicieron una mamografía en Magallanes en los tres años anteriores fue 58.6 por ciento. El porcentaje de mujeres que se hicieron una prueba de Papanicolau en los tres años anteriores fue 60.3 por ciento (Encuesta Casen 2015, Ministerio de Bienestar Social).

Indicadores del Índice de prosperidad urbana ONU-Habitat que pueden ser útiles en la evaluación

No aplica.



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