Concepts of Urban Liveability

Kim N. Irvine, HSSE
Let’s Begin with the Difficult Question:

- What Makes a City Liveable?
  - Balsas (2004) maintains “Livable means many things to different people…. A livable place is safe, clean, beautiful, economically vital, affordable to a diverse population and efficiently administered with functional infrastructure, interesting cultural activities and institutions, ample parks, effective public transportation and broad opportunities for employment. It also connotes a sense of community.”
Liveability from the Economist Intelligence Unit (U.K.)

• “The concept of liveability is simple: it assesses which locations around the world provide the best or worst living conditions.”

<table>
<thead>
<tr>
<th>City</th>
<th>Rank</th>
<th>City</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melbourne</td>
<td>1</td>
<td>Singapore</td>
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<tr>
<td>Vancouver</td>
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<td>London</td>
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<tr>
<td>Toronto</td>
<td>4</td>
<td>Taipei</td>
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<tr>
<td>Calgary</td>
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<td>Hong Kong</td>
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<td>Kuala Lumpur</td>
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<tr>
<td>Detroit</td>
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<td>Bangkok</td>
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</tr>
<tr>
<td>Los Angeles</td>
<td>43</td>
<td>Phnom Penh</td>
<td>126</td>
</tr>
</tbody>
</table>

EIU, 2013
The Value of Rankings and the Meaning of Livability
(http://www.livablecities.org/blog/value-rankings-and-meaning-livability)

• Since first using the term “livable cities” back in the 1980s to describe quality of life and the characteristics of cities that make them livable, IMCL (International Making Cities Livable) has seen the term used in countless ways to describe standard of living, rather than quality of life.
The Value of Rankings and the Meaning of Livability
(http://www.livablecities.org/blog/value-rankings-and-meaning-livability)

• Every city wants to be considered the “most livable,” a title that can attract new business and investments, boost local economies and real estate markets, and foster community involvement and pride. The term has become so widely, if not overly used, that its meaning is becoming lost.
Inter-Related Concepts

- Quality of Life studies
- Eco-city planning
- Green cities
- Sustainability
- Happy cities
- Community wellbeing
- Resilient cities
- Smart cities
Sustainability and Liveability


  – The Town of Okotoks considers the sustainable development of the community to be about liveability.

  – "The subtle shift in mindset that has taken place in recent years is that today, there is less concern about attracting growth and more concern about managing growth toward a positive and proactive vision we have for the community - an end state that preserves the enviable lifestyle we have come to expect in Okotoks."
Sustainability and Liveability

- In some cases, then, it seems that sustainability and liveability are used almost interchangeably, although in other cases liveability might be considered a subset of a sustainable region.

- Some also have argued that a liveable city is not necessarily a sustainable city (e.g. Newton, 2012).

- Let’s explore these links.

How are Liveability, Sustainability, and Eco-City Planning Connected?

• The concept of “eco-city planning” appears to have been established in North America during the mid-1970’s with the Urban Ecology group in Berkley, California.

• The primary guiding principle for eco-city planning is the belief that cities should function in the same way as a natural ecosystem and reflect natural patterns of sustainability.
How are Liveability, Sustainability, and Eco-City Planning Connected?

• An important element of eco-city planning is use of appropriate green technologies for water, energy, and waste management.
How are Liveability, Sustainability, and Eco-City Planning Connected?

• The World Bank defines eco-cities as “cities that create economic opportunities for their citizens in an inclusive, sustainable, and resource-efficient way, while also protecting and nurturing the local ecology and global public goods, such as the environment, for future generations.”

• In this sense eco-cities place a deeper focus on holistical ecological connections than just planning sustainability.
Inter-Related Concepts

- Quality of Life studies
- Eco-city planning
- Green cities
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How are Liveability, Sustainability, and Resiliency Connected?

• “Resiliency” refers to the ability of a system to respond and recover from disasters and includes attributes that allow the system to absorb impacts.
How are Liveability, Sustainability, and Resiliency Connected?

Resiliency may be a key ingredient of sustainability as well as vulnerability reduction, such that resilient systems (including biological and socio-economic systems) are able to survive, adapt and grow in the face of uncertainty and unforseen disruptions.
Place-based model for understanding community resilience to natural disasters (from Cutter et al., 2008)
### Characterizing Community Resilience

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Candidate Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecological</td>
<td>Wetlands acreage and loss</td>
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<td></td>
<td>Erosion rates</td>
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<td></td>
<td>% impervious surface</td>
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<td></td>
<td>Biodiversity</td>
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<td></td>
<td># coastal defense structures</td>
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<tr>
<td>Social</td>
<td>Demographics (age, race, class, gender, occupation)</td>
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<tr>
<td></td>
<td>Social networks and social embeddedness</td>
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<tr>
<td></td>
<td>Community values-cohesion</td>
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<td>Faith-based organizations</td>
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<tr>
<td>Economic</td>
<td>Employment</td>
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<td>Value of property</td>
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<td>Wealth generation</td>
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<td>Municipal finance/revenues</td>
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<td>Institutional</td>
<td>Participation in hazard reduction programs</td>
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<td>Hazard mitigation plans</td>
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<td></td>
<td>Emergency services</td>
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<td>Zoning and building standards</td>
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<td>Emergency response plans</td>
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<td>Interoperable communications</td>
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<td>Continuity of operations plans</td>
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<tr>
<td>Infrastructure</td>
<td>Lifelines and critical infrastructure</td>
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<td></td>
<td>Transportation network</td>
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<td></td>
<td>Residential housing stock and age</td>
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<td></td>
<td>Commercial and manufacturing establishments</td>
</tr>
<tr>
<td>Community competence</td>
<td>Local understanding of risk</td>
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<td></td>
<td>Counseling services</td>
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<tr>
<td></td>
<td>Absence of psychopathologies (alcohol, drug, spousal abuse)</td>
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<tr>
<td></td>
<td>Health and wellness (low rates of mental illness, stress-related outcomes)</td>
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<tr>
<td></td>
<td>Quality of life (high satisfaction)</td>
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</tbody>
</table>
Cities and Happiness

• Ballas (2013) notes that “Happiness questions are increasingly used in population surveys....”

• “Happiness” questions typically (but not always) are represented by subjective measures (e.g. Are you happy with your life?) whereas Quality of Life questions usually seek to objectively and quantitatively evaluate the impact of quantity and quality of natural amenities and other factors.
Cities and Happiness

• Ballas (2013) concludes that “…there is great potential to build on the very successful urban and regional research of QoL indicators by complementing them and/or combining them with subjective measures of happiness and well-being.”, but he also notes much research still is needed to link these approaches and it must be multidisciplinary, considering theories from geography, economics, sociology, planning, and psychology.
Cities and Happiness

• In fact, O’Brien (2006), in an article for Canadian Psychology, explicitly linked sustainability, sustainable development, liveable cities, and happiness, under the concept of “sustainable happiness”.

• Sustainable happiness – the pursuit of happiness that does not exploit other people, the environment, or future generations.
Cities and Happiness

• The coffee example – consider the momentary pleasure of drinking a cup of coffee....this momentary pleasure can be placed in a wider context.

• Is it fair trade coffee?

• Has it come at the expense of other people or the natural environment?
Cities and Happiness

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Cities and Happiness

• Let’s differentiate between “intrinsic” goals and “extrinsic” goals.

• Intrinsic – individuals satisfy inherent psychological needs for personal growth, self-acceptance, relationships, physical fitness, and community involvement.

• Extrinsic – goals sought through financial success, social recognition, image, and popularity.

• In which way are you more oriented and does this impact your happiness?
Happiness is not a right but a state of mind

Survey shows that people in some poor countries are happier than those in rich ones.

http://www.thestar.com/opinion/editorialopinion/2012/02/16/happiness_is_not_a_right_but_a_state_of_mind.htm
From the Toronto Star

• Last week (2012) the census came out, begetting the usual flurry of analysis. But I was more intrigued by an Ipsos worldwide survey on happiness, which they’ve been “tracking” since 2007.

• Of 24 countries, the happiest, by far, were Indonesia (51 per cent), India and Mexico (both 43 per cent). Yet they’re much poorer and less developed than sadder, richer places like Canada, the U.S. and the U.K., all in the 20s, or Russia, Hungary and South Korea, in single digits. Why this division?
From the Toronto Star

• Could it be that:

  – If you feel happiness is your right, you’re bound to be unhappy.
  
  – Consumerism and advertising play a role in constructing this sense of entitlement.
  
  – In teeming, impoverished societies, great drive and passion are often needed simply to survive. With that comes some raw creativity. So those places feel energized and a byproduct of energy is a sense of vitality…
Cities and Happiness

• Various studies have shown a relationship between happiness and longevity, although others have suggested the relationships are complicated.

• Others have shown that cities can affect health.

• Can we develop urban planning policies that increase happiness and health?
Smart Cities and Liveability

- Information and Communications Technology building blocks for a smart city are ubiquitous connectivity, collaborative platforms (office automation tools), geo-spatial layouts (enabling real-time data via connection of a wide range of sensors to control systems), and social networking.
Smart Cities and Liveability

The ICT-enhanced dimensions of the Smart City (from Staffans and Horelli, 2014).
How Do We Assess Sustainability or Liveability?
First, Recall the Model of Sustainable Development (or the Triple Bottom Line)

- The sustainable development debate is based on the assumption that societies need to manage three types of capital (economic, social, and natural), which may be non-substitutable and whose consumption might be irreversible.

In this three pillar model, there are some clear links to liveability.
How do We Assess Sustainability or Liveability?

• One approach that increasingly is used is an “indicator” approach.

• An indicator quantifies and simplifies phenomena and helps us understand complex realities.

• Indicators have been used in fields as diverse as water quality assessment, biomonitoring, and economic welfare.
More Recently, A Number of “Liveability Indexes” Have Been Published

- EIU’s Global Liveability Index.
- Mercer’s Quality of Living Index.
- Monocle’s Most Liveable Cities index.
- Lee Kuan Yew School of Public Policy’s Global Liveability Index.
Many Alternative Indexes also have been Developed that Focus on Community

- Canadian Index of Wellbeing.

- Community Vitality Index – Centre for Innovative and Entrepreneurial Leadership (CIEL).

- Index of Social Health – Human Resources Development Canada.

- Quality of Life Reporting System – Federation of Canadian Municipalities.

- Jacksonville Quality of Life Progress Report – Jacksonville Community Council, Inc.

- Community Vitality Index – Metro Chicago Information Centre (MCIC).
Liveability and Community Indexes

• These indexes don’t rely on a single indicator, but rather tend to incorporate multiple indicators under different categories.
Indicators

• Traditionally, indicators are selected to provide information about the functioning of a specific system, for a specific purpose - to support decision making and management.

• An indicator quantifies and aggregates data that can be measured and monitored to determine whether change is taking place.
Indicators

• In order to understand the process of change, the indicator also needs to help decision makers understand why change is taking place.
Indicators

• “Canadian Index of Wellbeing (CIW) is a tool that is measuring what matters to Canadians. It tracks wellbeing from year to year in an effort to offer clear, effective, and regular information on the quality of life of all Canadians…..”

• “The CIW provides information that policy shapers, decision makers, media, community organizations and the person on the street will be able to use to get the latest trend information in an easily understandable format.”

https://uwaterloo.ca/canadian-index-wellbeing/our-products
Indicators

• With the more recent trend in “Liveability Indexes” there is a new focus, with some subtle and not-so-subtle differences from wellbeing indexes:

• “At a time of increasing mobility of talent, attracting human capital has become the critical success factor to fuel knowledge-led growth. The paper uses the notion of “liveability” to denote the broader set of criteria to attract such talent and measures these criteria with the Global Liveable Cities Index (GLCI) which encompasses 85 indicators.”

Tan et al. (2014) A New Instrument to Promote Knowledge-led Growth: The Global Liveable Cities Index
Let’s Start with Some Simple Examples
Sustainability of Urban Water Infrastructure
An Example of Urban Infrastructure Assessment

Fig. 2. Framework for assessing urban water systems. Solid lines represent water flows, and broken lines represent relevance to sustainability (adapted from Soares and Bernardes 2003).
## Sustainability Indicators for Urban Water Systems (from Sahely et al., 2005)

<table>
<thead>
<tr>
<th>Environmental Pillar</th>
<th>Economic Pillar</th>
<th>Engineering Pillar</th>
<th>Social Pillar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction material usage</td>
<td>Capital, operation and maintenance costs</td>
<td>Flow rate-pressure</td>
<td>Access to potable water and sanitation services</td>
</tr>
<tr>
<td>Energy usage</td>
<td>Service fees</td>
<td>Service interruptions</td>
<td>Water quality</td>
</tr>
<tr>
<td>Land use</td>
<td>Expenditures in research and development and technology change</td>
<td>Fire flow</td>
<td>Public participation</td>
</tr>
<tr>
<td>Chemical use</td>
<td>Reserve funds</td>
<td>Storage</td>
<td></td>
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<td>Contaminants</td>
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<td>Leakage</td>
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<td>Nutrients</td>
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<td>Sludge</td>
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<td>GHG emissions</td>
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</tbody>
</table>
Examples of Indicator Time Series for City of Toronto (from Sahely et al., 2005)

Environmental Indicator

Engineering Indicator
Millennium Development Goal Indicators
Percent of Population Living on <$1/Day, PPP

(http://mdgs.un.org/unsd/mdg/Data.aspx)

Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day.
These Examples Raise a Few Issues

• At what scale should we do our measurements? Individual, census block, city, province, country?

• How do we compare big countries vs small countries?

• Per Capita GDP – what are the shortcomings of this indicator?
Gross Domestic Product

The economic development of countries worldwide frequently is measured by two factors:

1. Gross Domestic Product (GDP):
   Estimated total value of goods that is produced by a country in a particular year.

2. Per Capita GDP:
   The total value of GDP of a country divided by its population.
Shortcomings of Per Capita GDP

A). Does not indicate the real buying power of an income in a country, unless adjusted by PPP.

B). Does not indicate non-monetary goods and services or informal economies.

C). Does not recognize unequal distribution of money.
Informal Economies Counted in the GDP?

Market in An Giang Province, Mekong Delta, Vietnam

Pursat market, Cambodia
Total GDP, 2013, IMF, adjusted by PPP.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>GDP (Billions of US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>United States</td>
<td>16,768.1</td>
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<tr>
<td>2</td>
<td>China</td>
<td>16,149.1</td>
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<tr>
<td>3</td>
<td>India</td>
<td>6,776.0</td>
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<td>Japan</td>
<td>4,667.6</td>
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<td>Germany</td>
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<td>Russia</td>
<td>3,491.6</td>
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<tr>
<td>7</td>
<td>Brazil</td>
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<td>8</td>
<td>France</td>
<td>2,534.5</td>
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<tr>
<td>9</td>
<td>Indonesia</td>
<td>2,389.0</td>
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<td>10</td>
<td>United Kingdom</td>
<td>2,320.4</td>
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<td>11</td>
<td>Mexico</td>
<td>2,058.9</td>
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<td>12</td>
<td>Italy</td>
<td>2,035.4</td>
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<td>South Korea</td>
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<td>1,553.1</td>
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<tr>
<td>15</td>
<td>Canada</td>
<td>1,518.4</td>
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<tr>
<td>16</td>
<td>Spain</td>
<td>1,488.8</td>
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<td>17</td>
<td>Turkey</td>
<td>1,443.5</td>
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</table>
Purchasing Power Parity (PPP)

- PPP takes into account the relative cost of living and the inflation rates of different countries, rather than just a nominal GDP.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Int$</th>
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<tbody>
<tr>
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<td>145,894</td>
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<td>Luxembourg</td>
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<td>Singapore</td>
<td>78,762</td>
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<td>4</td>
<td>Brunei</td>
<td>73,823</td>
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<td>Kuwait</td>
<td>70,785</td>
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<td>Norway</td>
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<td>United Arab Emirates</td>
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<td>16</td>
<td>Austria</td>
<td>44,402</td>
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<tr>
<td>17</td>
<td>Germany</td>
<td>43,475</td>
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</tbody>
</table>

Per Capita GDP based on Purchasing Power Parity

Japan – rank 27 ($36,654)
South Korea – rank 30 ($33,791)
Thailand – rank 80 ($14,136)
China – rank 89 ($11,868)
India – rank 126 ($5,450)
The Gini Coefficient

• An alternative way to look at wealth – it attempts to assess the distribution of income within a community or country. Normally, this wealth is defined by income, which presents another set of issues.....

• First applied by the Italian statistician and sociologist Corrado Gini and published in his 1912 paper "Variability and Mutability".
The Gini Coefficient

• Since then, has been used to look at inequality issues in disciplines as diverse as economics, health science, ecology, chemistry and engineering.

• The Gini coefficient is a measure of the inequality of a distribution, a value of 0 expressing total equality and a value of 1 (or 100%) maximal inequality.
Gini Coefficient

The Gini coefficient usually defined based on the Lorenz curve, which plots the proportion of the total income of the population (y axis) that is cumulatively earned by the bottom x% of the population (see diagram). The line at 45 degrees thus represents perfect equality of incomes.

The Gini coefficient can then be thought of as the ratio of the area that lies between the line of equality and the Lorenz curve (marked A in the diagram) over the total area under the line of equality (marked A and B in the diagram); i.e., \( G = \frac{A}{A + B} \).

The closer the Gini Coefficient is to 0, the more equal the distribution.
Global Distribution of Gini Coefficient

http://www.indexmundi.com/facts/indicators/SI.POV.GINI (based on World Bank data)
Gini Coefficient (from World Bank, representing 2007-2012*)

<table>
<thead>
<tr>
<th>Country</th>
<th>Gini</th>
<th>Country</th>
<th>Gini</th>
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<tbody>
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<td>Chile</td>
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<td>France</td>
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The Gini Coefficient

• As we see by comparing Canada and Cambodia in the previous slide, the Gini Coefficient, too, has its shortcomings.

• Maybe better to look at measures of central tendency AND dispersion.
How Do We Determine What Indicators to Use in an Index?
Possible Steps to Develop Indicators

• Bossel (1999) *Indicators for Sustainable Development: Theory, Method, Applications* summarized an approach that could be used to identify indicators:

  • **Step 1**: Convene a working group representing a broad range of views and experience.

  • **Step 2**: Define a statement of purpose.

  • **Step 3**: Develop the values and visions of the group.
Possible Steps to Develop Indicators

• **Step 4:** Review available data.

• **Step 5:** Draft an initial indicator set.

• **Step 6:** Involve community participation in critiquing and improving the indicator set.

• **Step 7:** Involve experts in technical review of the indicator set.
Possible Steps to Develop Indicators

• **Step 8**: Research for required indicator data (if data not available).

• **Step 9**: Publish and promote the indicator set.

• **Step 10**: Review and update the indicator set in a transparent, formal process.
Indicators of Sustainability

• Bossel (1999) *Indicators for Sustainable Development: Theory, Method, Applications* gave as an example, the Worldwatch Institute database that could be mined for Indicators:

- [http://vitalsigns.worldwatch.org/](http://vitalsigns.worldwatch.org/); or see World Bank, World Development Indicators:

Some Guiding Principles in Selecting Indicators (from Niemeijer and de Groot, 2008)

i) universality (applicable to many areas/situations and scales of measurement);
ii) portability (repeatability and reproducibility);
iii) sensitive to change;
iv) operationally simple;
v) inexpensive to collect;
vi) already existing with historical comparative data; and
vii) have wide (international) use.
Example Liveability and Quality of Life Indexes
Canadian Index of Wellbeing

Eight (8) domains
Eight (8) headline indicators within each domain

Canadian Index of Wellbeing

CIW Composite Index
Sixty-four (64) indicators consolidated into a single CIW index

https://uwaterloo.ca/canadian-index-wellbeing/our-products/framework
Canadian Index of Wellbeing

- Uses 64 Indicators in 8 Domains, as noted in the previous slide.

- Uses the year 1994 as the base year of comparison due to data availability considerations.

- Calculate the percent change for each indicator over each year.

- To standardize the index values so that increases and decreases in figures uniformly represent improvement or deterioration in wellbeing, respectively, the values of negative indicators were converted into their reciprocals and then turned into percentages.
Canadian Index of Wellbeing

• Take the mean of the percent changes for each indicator to represent each of the 8 Domains.

• All indicators are assumed to have equal weight.

• In the next graph, green represents improving conditions and red represents deteriorating conditions.
Canadian Index of Wellbeing

Trends in the Canadian Index of Wellbeing and its Eight Domains, Compared with GDP (1994 to 2008)

- GDP +31%
- Living Standards
- Community Vitality
- Democratic Engagement
- Education
- CIW +11%
- Healthy Populations
- Environment
- Time Use
- Leisure and Culture

Year

Percentage Change in Index

140.0
130.0
120.0
110.0
100.0
90.0

The EIU Liveability Index (again)....

<table>
<thead>
<tr>
<th>City</th>
<th>Rank</th>
<th>City</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melbourne</td>
<td>1</td>
<td>Singapore</td>
<td>52</td>
</tr>
<tr>
<td>Vancouver</td>
<td>3</td>
<td>London</td>
<td>55</td>
</tr>
<tr>
<td>Toronto</td>
<td>4</td>
<td>Taipei</td>
<td>61</td>
</tr>
<tr>
<td>Calgary</td>
<td>5</td>
<td>Beijing</td>
<td>73</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>31</td>
<td>Kuala Lumpur</td>
<td>77</td>
</tr>
<tr>
<td>Detroit</td>
<td>40</td>
<td>Bangkok</td>
<td>101</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>43</td>
<td>Phnom Penh</td>
<td>126</td>
</tr>
</tbody>
</table>
# Liveable City Indexes – A Comparison

## Table 1: Overview of liveability indices

<table>
<thead>
<tr>
<th>EIU's Global Liveability Index (30 indicators in 5 categories)</th>
<th>Mercer's Quality of Living Index (39 indicators in 10 categories)</th>
<th>Monocle's Most Liveable Cities index (11 indicators)</th>
</tr>
</thead>
</table>
| 1. Stability  
2. Healthcare  
3. Culture & Environment  
4. Education  
5. Infrastructure | 1. Political & social environment  
2. Medical & health considerations  
3. Socio-cultural environment  
4. Schools & education  
5. Economic environment  
6. Public services & transport  
7. Recreation  
8. Consumer goods  
9. Housing  
10. Natural environment | 1. Safety/crime  
2. Medical care  
3. Climate/sunshine  
4. International connectivity  
5. Public transportation  
6. Quality of architecture  
7. Environmental issues and access to nature  
8. Urban design  
9. Business conditions  
10. Pro-active policy development  
11. Tolerance |

From CLC, 2013
### Quality-of-Living Rankings Spotlight: Emerging Cities

**Global Liveability Ranking and Report August 2014**

The Economist Intelligence Unit, in collaboration with business leaders, has compiled a report titled "Quality of Living: Global Liveability Rating 2014." The report highlights the top cities in the world based on various criteria, including healthcare, education, and infrastructure.

#### Download Global Liveability Ranking and Report August 2014

Register or log in to download this free report.

<table>
<thead>
<tr>
<th>Login</th>
<th>Username or e-mail</th>
<th>Password</th>
<th>Remember me?</th>
<th>Log In</th>
</tr>
</thead>
</table>

#### Registration

- **First Name**: [enter name]
- **Last Name**: [enter name]
- **Job Title**: [enter title]
- **Company Name**: [enter name]
- **Industry**: [enter industry]
- **Country**: [select country]
- **City**: [select city]
- **Phone Number**: [enter number]

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**MONOCLE**

#### Most liveable city: Copenhagen

In 2013, Copenhagen was the number one city in Monocle's annual Quality of Life Survey – Gabriel Leigh filmed this report last year.

Now, in 2014, Copenhagen has once again been crowned the winning city. To watch Monocle's 2014 Quality of Life film, click here.
Lee Kuan Yew School of Public Policy’s Global Liveability Index

Criticisms of other indexes include:

- A bias towards low population density cities.
- A bias towards moderate climate, with EIU’s “environment” only reflecting climate.
- A bias towards either the wealthy or expats.
- Inaccurate reflection of health care expenditures (in the case of Singapore).
- Singapore scores less well on education because there is a focus on adult population with secondary education and Singapore’s elderly may not have had access.

<table>
<thead>
<tr>
<th>LKYSPP’s Global Liveable Cities Index (85 indicators in 5 categories)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Domestic security &amp; stability</td>
</tr>
<tr>
<td>2. Quality of life &amp; diversity</td>
</tr>
<tr>
<td>3. Environmental friendliness &amp; sustainability</td>
</tr>
<tr>
<td>4. Good governance &amp; effective leadership</td>
</tr>
<tr>
<td>5. Economic vibrancy &amp; competitiveness</td>
</tr>
</tbody>
</table>

SG rank: 3/64 (2012)
A Different Take on Liveability
Indexes from Forbes:

• “Cultural institutions, public safety, mass transit, “green” policies and other measures of what is called “livability” were weighted heavily, so results skewed heavily toward compact cities in fairly prosperous regions…. ”
A Different Take on Liveability
Indexes from Forbes:

• “Yet are those the best standards for judging a city? It seems to me what makes for great cities in history are not measurements of safety, sanitation or homogeneity but economic growth, cultural diversity and social dynamism.”
A Different Take on Liveability
Indexes from Forbes:

• “Peace and quiet is very nice, but it doesn’t really encourage global culture or commerce. Growth and change come about when newcomers jostle with locals not just as tourists, or orbiting executives, but as migrants. Great cities in their peaks are all about this kind of yeasty confrontation.”
A Different Take on Liveability Indexes from Forbes:

• “Ultimately great cities remain, almost by necessity, raw (and at times unpleasant) places. They are filled with the sights and smells of diverse cultures, elbowing streetwise entrepreneurs and the inevitable mafiosi. They all suffer the social tensions that come with rapid change and massive migration. New York, Los Angeles, London, Shanghai, Mumbai or Dubai may not shoot to the top of more elite, refined rankings, but they contain the most likely blueprint of our urban future.”

Some Questions…

• Are liveable cities necessarily sustainable cities?

• Are liveability indices useful?

• Would a smart city make you happier?

• Would a smarter city make Singapore more liveable?