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A Presentation by A CACOR Member

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PATHWAYS: THE C8 REPORT

Can Canada & Canadians
Conquer the Climate
Change Challenge?

A Report of the Canadian Association

for the Club of Rome - CACOR



In Pathways, for carbon reduction we found Canada had not used useful measurement tools to ask the questions about what was bio-physically possible?

Governments continually **set targets without** exploring what our resource base, infrastructure and physical resources would permit.

In Pathways we will propose a new methodology to aid policy.

Aligning Policy with the Common Good

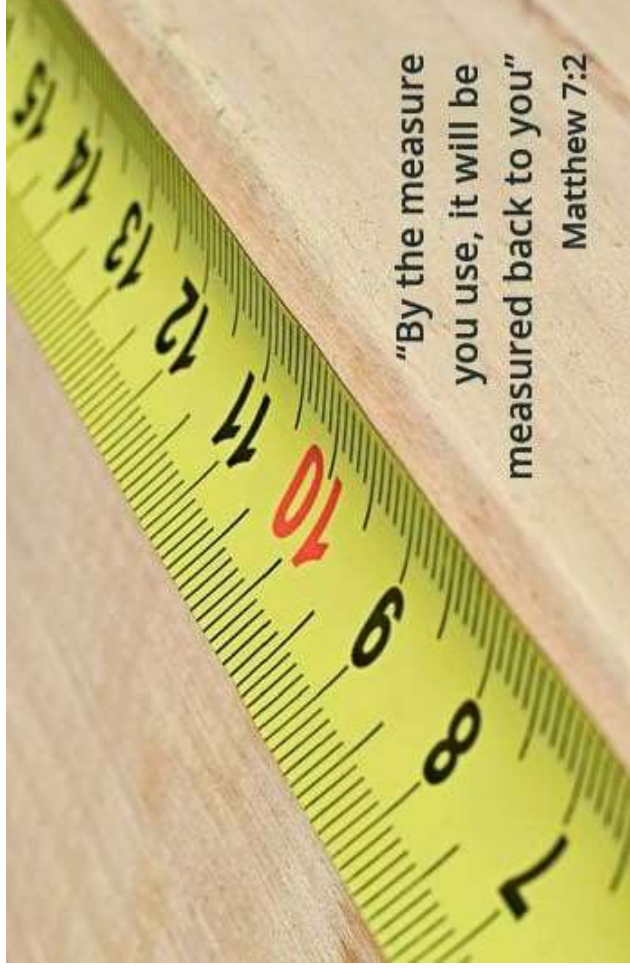
David Pollock: Former CACOR Board Chair, Former Executive Director Pembina Institute, Part-time with Citizens for Public Justice

Thanks to **Gord Kubenak** for some graphics help and to my former colleague **Mark Anielski** for updated material



PUNCHLINE

WHAT WE MEASURE WE BECOME





**Which do you recognize?
CBC, HST, ON, UoFT, GDP, GPI, NHL**

My Prediction:

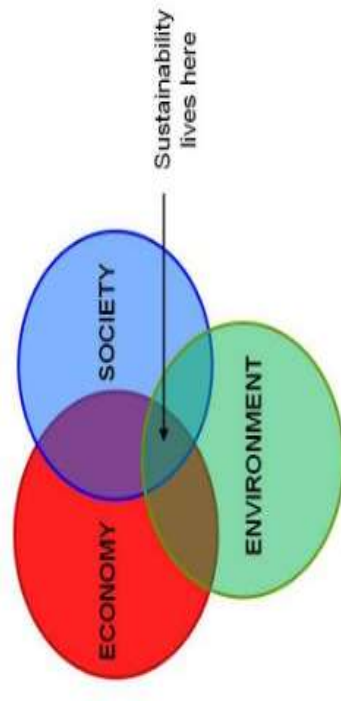
**Canadians will recognize either all or all
but one:**



**Today I will argue that
supplementing
GDP with GPI or other sustainable
well-being indicators is critical**

If we are to move towards

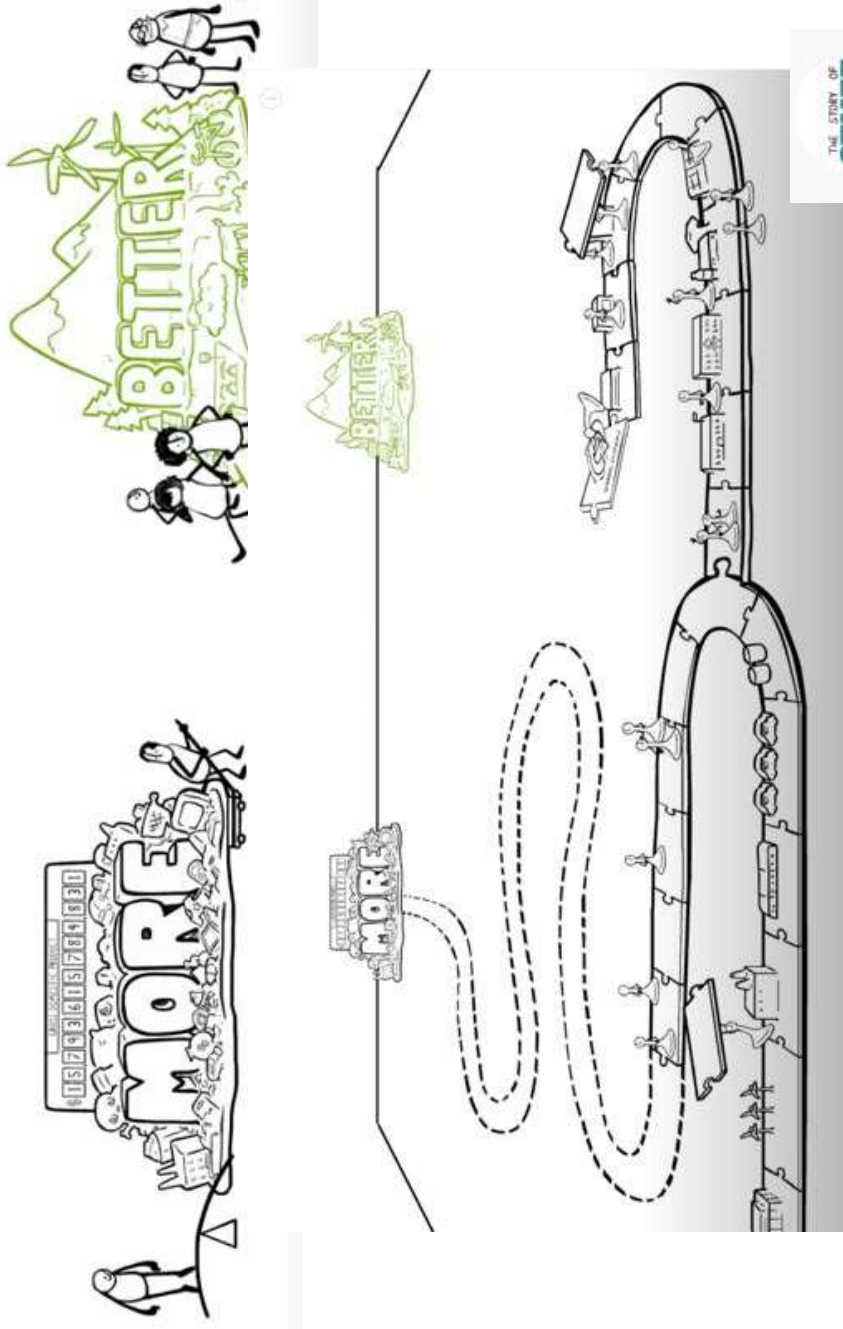
A Sustainable Society





WHAT'S WRONG WITH HOW WE MEASURE PROGRESS?

The Pathway to Well-being More or Better?



First though let's go back to the GDP:

- One of the first economic indicators most people hear about
- Ask any politician: GDP up is good, not growing is VERY bad
 - GDP going down a disaster!
- The World Bank, The IMF and others judge your financial health based on GDP

GDP does not measure what we value as a society:

GDP does not even measure our wealth.



Too much and too long, we seem to have surrendered community excellence and community values in the mere accumulation of material things.

What's wrong with GDP?



Robert Kennedy, 1968

Yet the gross national product does not allow for the **health** of our children, the quality of their education or the joy of their play.

It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the **integrity** of our public officials.

It measures neither our wit nor our **courage**, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile.

Speech in 1968 Kansas State University – Robert Kennedy

**GDP simply measures the flow
of money in the economy**



Money spent repairing damage from a Hurricane INCREASES the GDP

**GDP violates the first rule of accounting:
It treats the liquidation of assets like oil
and timber simply as Income and not a
reduction in inventory of natural capital**



The litany of crimes against genuine progress that GDP accounting sustains include:

- GDP adds up all money transactions without accounting for costs.
- GDP takes no account of the inequality of income, wealth and spending power.
- GDP treats crime, imprisonment, divorce and other forms of family and social breakdown as economic gain, yet the value of housework, parenting and volunteering count for nothing.



- GDP increases with each environmental calamity, each polluting activity and then again in repairing the damage.
- GDP does not account for the depletion or degradation of natural resources and the environment.
- GDP treats war expenditures as economic gain both during the destruction and the rebuilding phases.
- GDP ignores the liabilities of living on debt and foreign borrowing.

COMPONENTS OF THE GPI (Table 1)		
Column	Item	Adjustment
A	Personal Consumption	positive
B	Income Distribution	(adjusts consumption)
C	Personal Consumption Weighted for Consumption	$B \div C$
D	Value of Household Work and Parenting	positive
E	Value of Volunteer Work	positive
F	Services of Consumer Durables	positive
G	Services of Highways and Streets	positive
H	Cost of Crime	negative
I	Cost of Family Breakdown	negative
J	Loss of Leisure Time	negative
K	Cost of Underemployment	negative
L	Cost of Consumer Durables	negative
M	Cost of Commuting	negative
N	Cost of Household Pollution Abatement	negative
O	Cost of Automobile Accidents	negative
P	Cost of Water Pollution	negative
Q	Cost of Air Pollution	negative
R	Cost of Noise Pollution	negative
S	Loss of Wetlands	negative
T	Loss of Farmlands	negative
U	Depletion of Nonrenewable Energy Resources	negative
V	Other Long-term Environmental Damage	negative
W	Cost of Ozone Depletion	negative
X	Loss of Old Growth Forests	negative
Y	Net Capital Investment	positive/negative
Z	Net Foreign Lending or Borrowing	positive/negative

THE 1998 U.S. GENUINE
 PROGRESS INDICATOR (GPI)
 Summary Report
 by Mark Anielski & Jonathan
 Rowe
 REDEFINING PROGRESS San
 Francisco/Washington D.C.
 November 1998



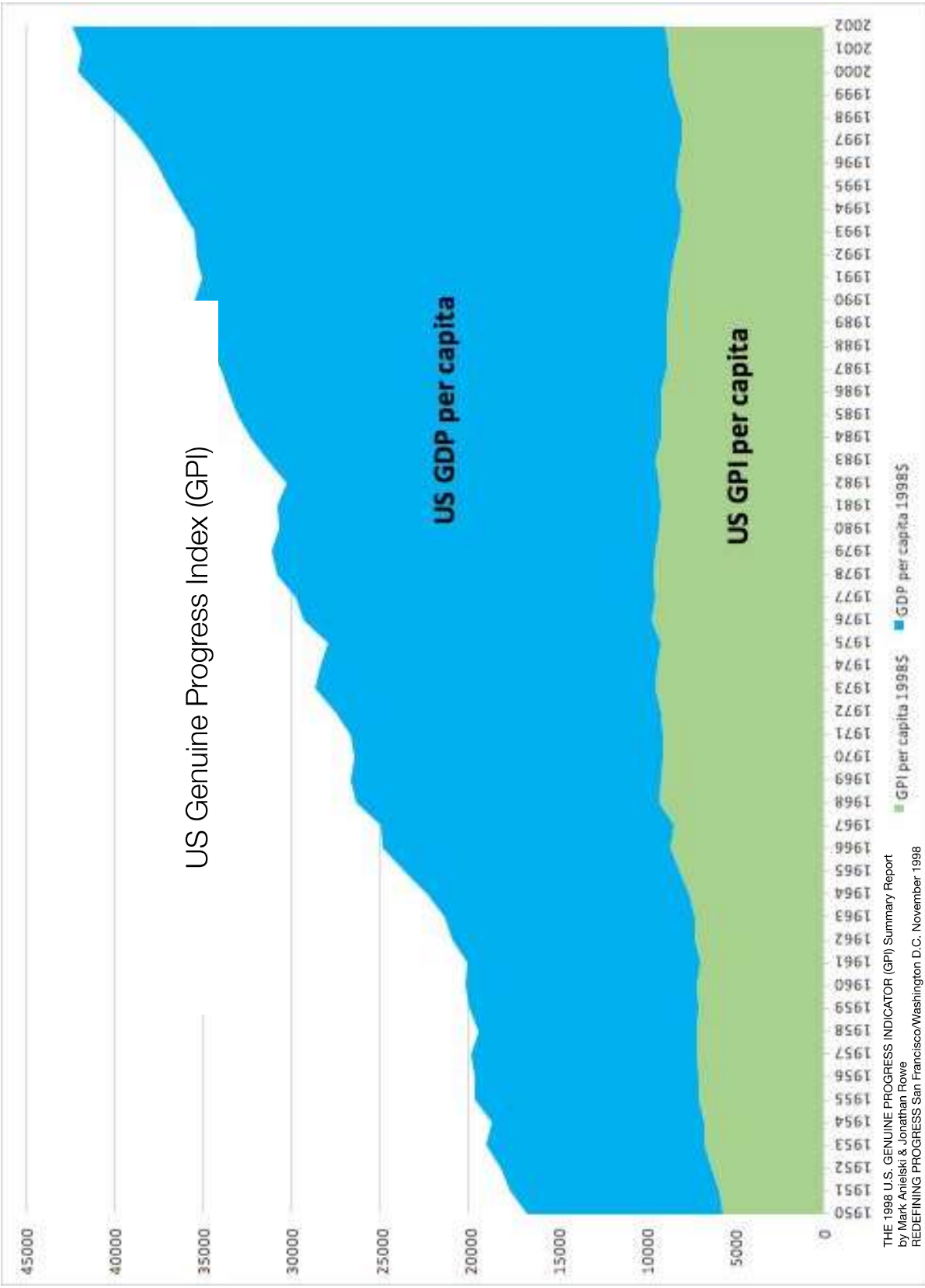
The Genuine Progress Indicator have included an adjustment for income inequality in all formulations. In years with greater inequality of income, and thus higher Gini values (greater inequality), consumption expenditures are then deflated by a factor equivalent to the percent change in Gini inequality.

For instance, in a year with Gini 5% higher than the index year, the wellbeing derived from consumption expenditures is divided by a factor of 1.05 to reflect the relatively reduced welfare-value of consumption expenditures.

On the whole, when lower income individuals receive a decreasing share of national income, their well-being declines more sharply than would that of higher-income individuals were their share of the national income decreased in like amount.

Having higher-incomes to start with, a relative reduction in the share of total income received by top earners is not nearly as likely to lead to any drastic reduction in the well-being of those individuals.

Extracted from a paper by Michael Weisdorf



THE 1998 U.S. GENUINE PROGRESS INDICATOR (GPI) Summary Report
 by Mark Anielski & Jonathan Rowe
 REDEFINING PROGRESS San Francisco/Washington D.C. November 1998

IN 2001 The Pembina Institute

**developed the first full set of GPI accounts
(51 Indicators) anywhere in the world**

**Genuine Progress Indicators Report
sought to answer two questions:**

How well is Alberta **really** doing?

How sustainable is its foundation?



**What does the
GPI measure?**

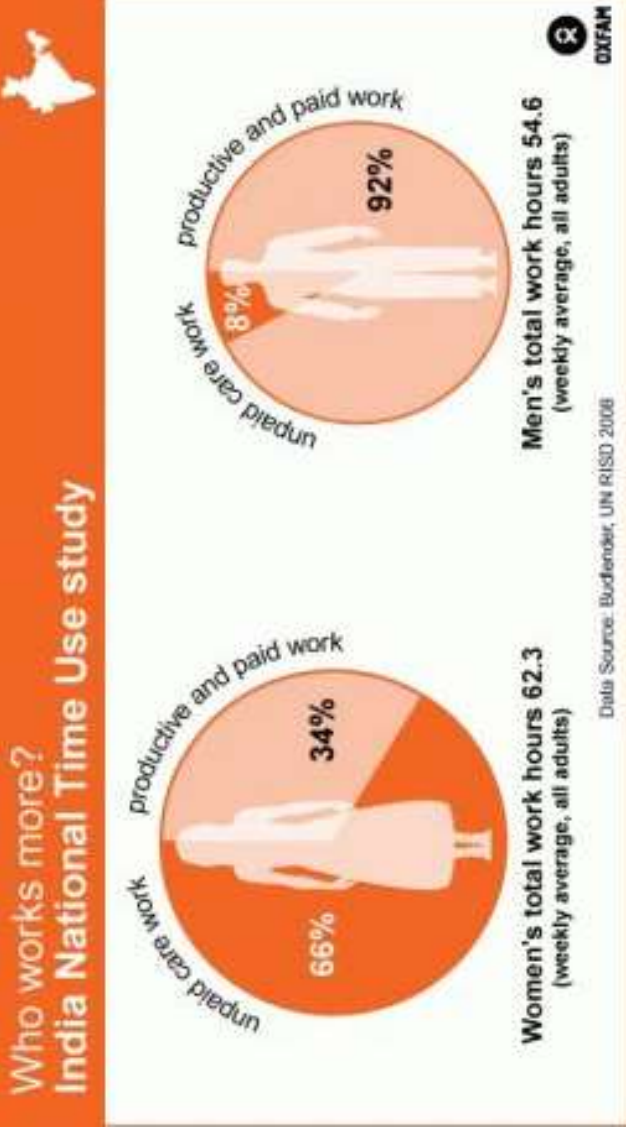
- **GPI Balance Sheet** a set of indicators (physical, qualitative, monetary, that describe the state of well being of individuals, communities and the environment over a specified period of time. It shows assets, liabilities and citizen's equity of all capital or wealth natural and monetary
- **GPI Net Sustainable Income Statement**
- **It is a national or provincial income statement** **FUNDAMENTALLY** different from the **GDP**

- The GPI accounting system is built on traditional bookkeeping systems
- Ledgers, a balance sheet, a net sustainable income statement that can be used to
- Prepare sustainability reports to citizens
- GPI accounts measure progress & changes in the condition of all living/built assets
- Similar in the way a business measures its financial health



GPI Income also recognizes not all expenditures contribute to well-being: car crashes, suicides etc should be treated as costs, not revenues the way GDP essentially does.

The GPI Income Statement Subtracts
the human, social, ecological and
natural resource costs incurred to
generate income



**GPI Income also recognizes the positive
contributes of unpaid work,
volunteering, childcare, eldercare and
housework**

What's In the Genuine Progress Indicators:

- **Time Use Accounts:** how individuals and households allocate their time for paid work, parenting, volunteering, eldercare, commuting, housework, free time
- **Social Capital Accounts:** condition of individuals and households such as poverty, inequality, family breakdown, crime ,democracy and social cohesion
- **Human Health and Wellness Accounts:** measures of life expectancy, premature mortality, suicide, obesity, and lifestyles
- **Natural Resource and Environmental Accounts:** measures of natural capital, ecological footprints, natural ecosystems, forests, wetlands, agriculture, non-renewable energy, energy efficiency, fish, wildlife, parks and wilderness, air and water quality, carbon budgets, hazardous waste and landfill waste.
- **Economic Accounts:** measures of traditional financial and built capital including GDP, trade, disposable income, weekly wages, consumption expenditures, taxes, savings, debt, infrastructure service values

In total 51 Indicators were utilized

Alberta Genuine Progress Index

Economic	Social	Environmental
<ul style="list-style-type: none"> • Economic growth (GDP) • Economic diversity • Trade Balance • Disposable income • Weekly wage rate • Personal expenditures • Transportation expenditures • Taxes • Savings rate • Household debt • Public infrastructure • Household infrastructure 	<ul style="list-style-type: none"> • Poverty • Income distribution • Ratio of top 10% of incomes to bottom 10% • Unemployment • Underemployment • Paid work time • Household work • Free time • Volunteerism • Commuting time • Life expectancy • Premature mortality • Infant mortality • Obesity • Suicide • Youth drug crime • Auto crashes • Domestic violence • Crime • Problem gambling • Voter participation • Educational attainment 	<ul style="list-style-type: none"> • Oil and gas reserve life • Oilsands reserve life • Energy use • Agricultural land • Timber sustainability • Forest fragmentation • Green space • Fish and wildlife • Wetlands • Water quality • Air quality • Greenhouse gas emissions • Carbon budget deficit • Hazardous waste • Landfill waste • Ecological footprint

Economic Accounts

Economic

- Economic growth
- Economic diversity
- Trade
- Disposable income
- Weekly wage rate
- Personal expenditures
- Transportation expenditures
- Taxes
- Savings
- Household debt
- Public infrastructure
- Household infrastructure

Personal/Social Accounts

Personal-Societal

- Poverty
- Income distribution
- Unemployment
- Underemployment
- Paid work
- Household work
- Parenting and eldercare
- Free time
- Volunteerism
- Commuting
- Life expectancy
- Premature mortality
- Infant mortality
- Obesity
- Suicide
- Drug use
- Auto crashes
- Divorce (family breakdown)
- Crime
- Problem gambling
- Voter participation
- Educational attainment

Environmental Accounts

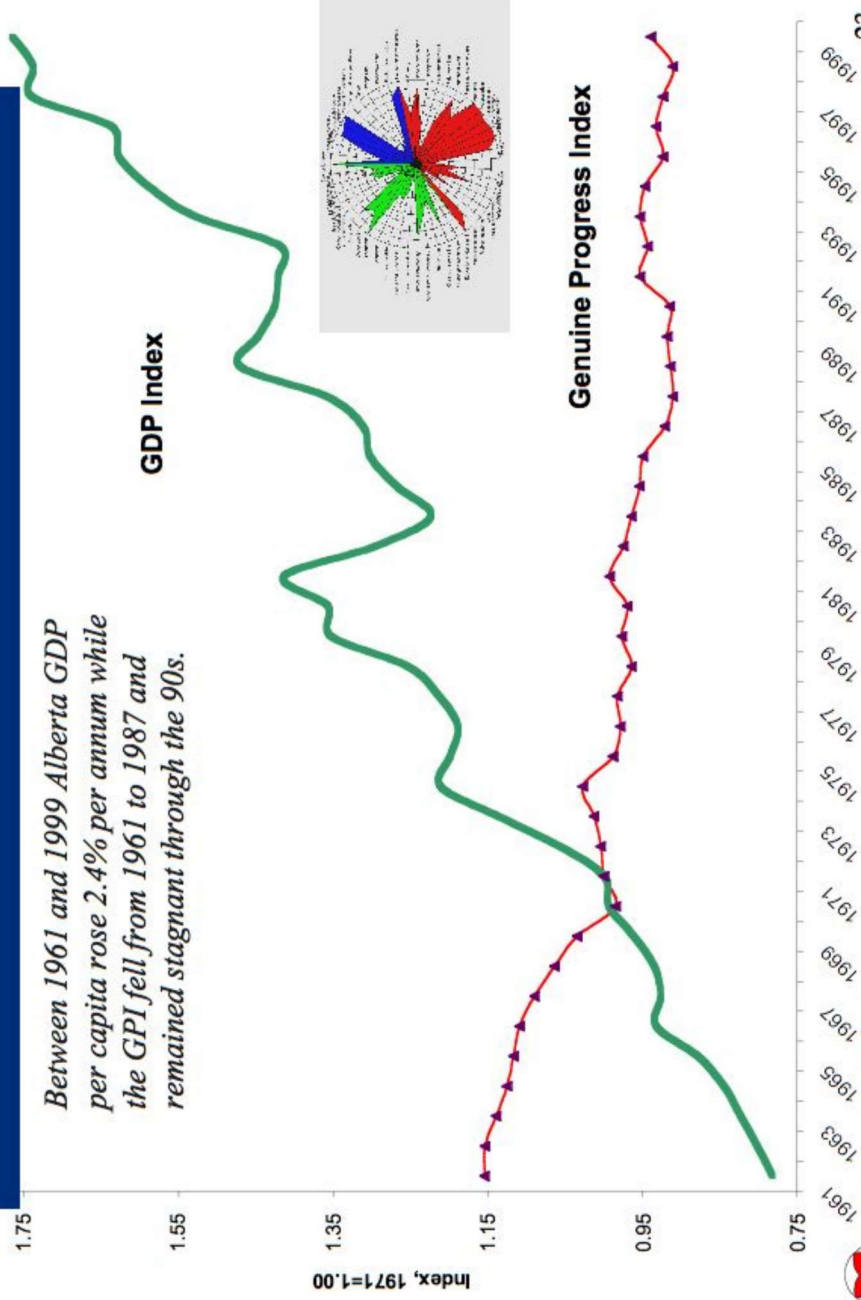
Environmental

- Oil and gas reserve life
- Oilsands reserve life
- Energy use
- Agriculture sustainability
- Timber sustainability
- Forest fragmentation
- Fish and wildlife
- Parks and wilderness
- Wetland
- Peatland
- Water quality
- Air quality-related emissions
- Greenhouse gas emissions
- Carbon budget deficit
- Hazardous waste
- Landfill waste
- Ecological footprint

GDP does not measure our well-being

The Alberta Genuine Progress Index

Between 1961 and 1999 Alberta GDP per capita rose 2.4% per annum while the GPI fell from 1961 to 1987 and remained stagnant through the 90s.



Source: Anielski et al. 2001



© Mark Anielski 2006

ALBERTA 1981 – 2008: GDP VS GPI

{RED}

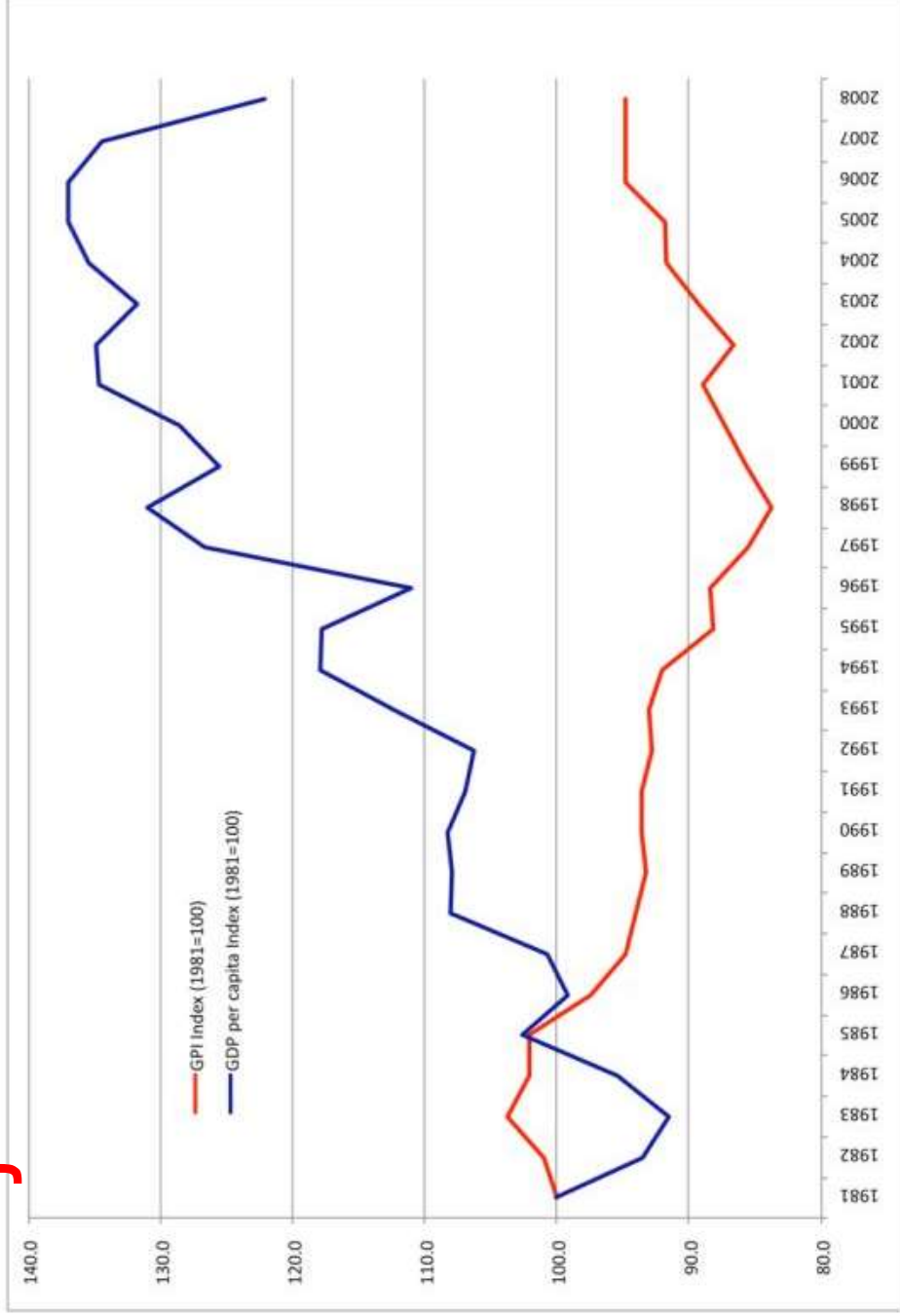
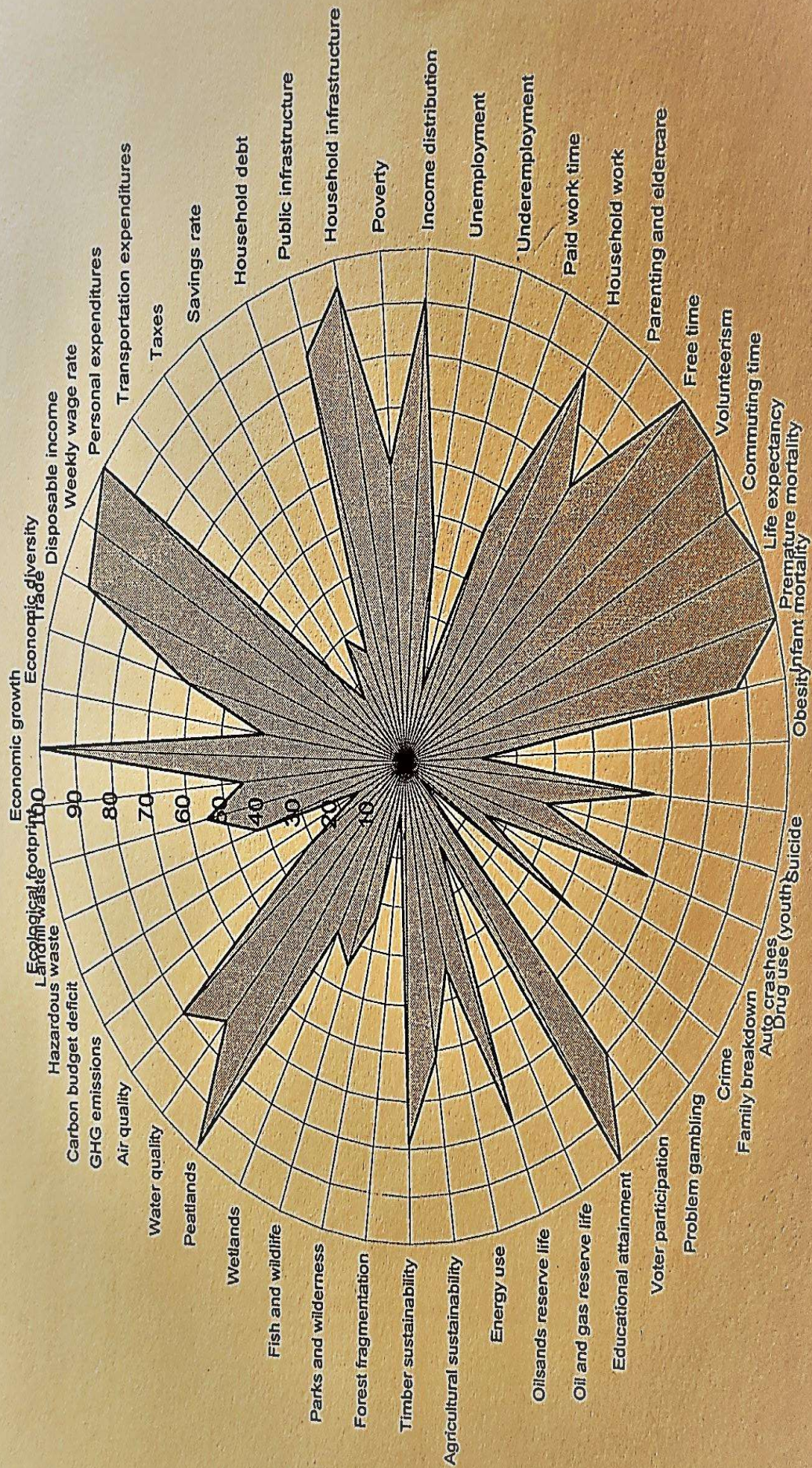


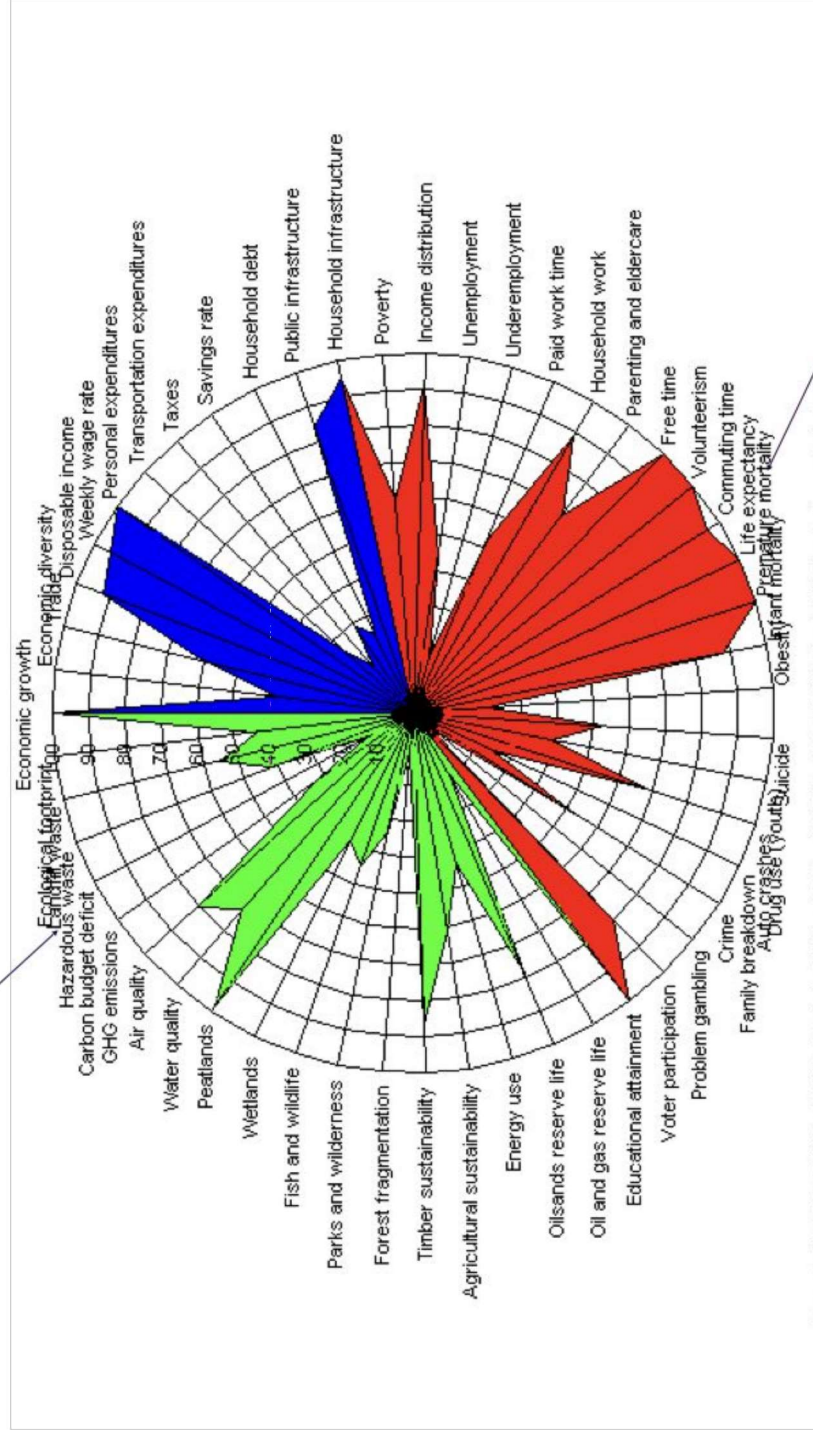
Figure 2: The Alberta GPI Sustainable Well-being Circle Index for 1999



Alberta Balance Sheet Well-being Indicators

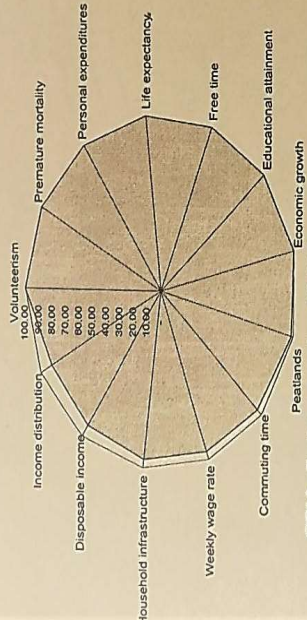
circa 1999

Well-being Liabilities

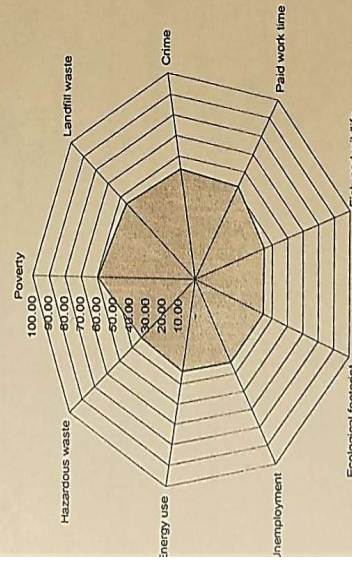


Source: Anielski, M. M., Griffiths, D., Pollock, A., Taylor, J., Wilson, S., Wilson, S. 2001. *Alberta Sustainability Trends 2000: Genuine Progress Indicators Report 1961 to 1999*, Pembina Institute for Appropriate Development. <http://www.pembina.org/green/gpi/>, April 2001.

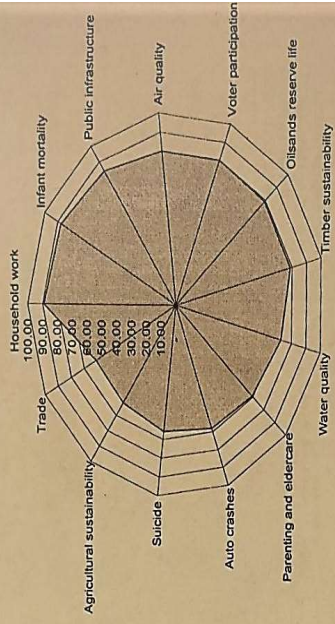
Appendix D: Alberta GPIs Ranked by Order of Scores



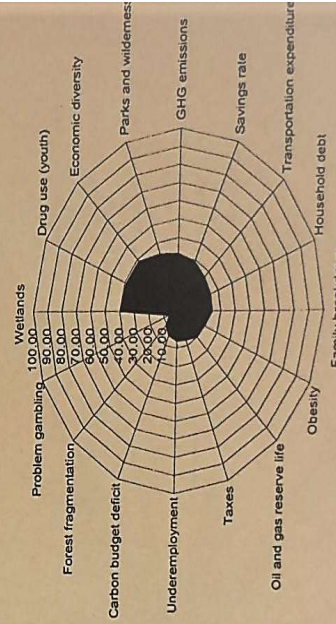
GPI Indicators scoring 80-100 points



GPI Indicators scoring 40-60 points



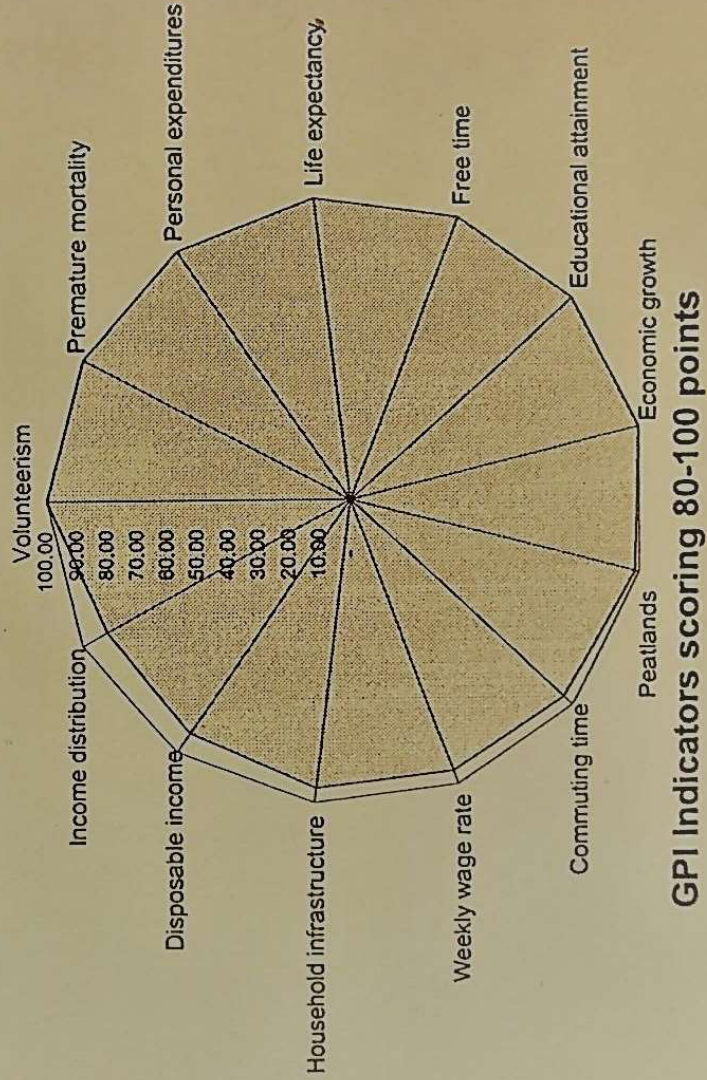
GPI Indicators scoring 60-80 points

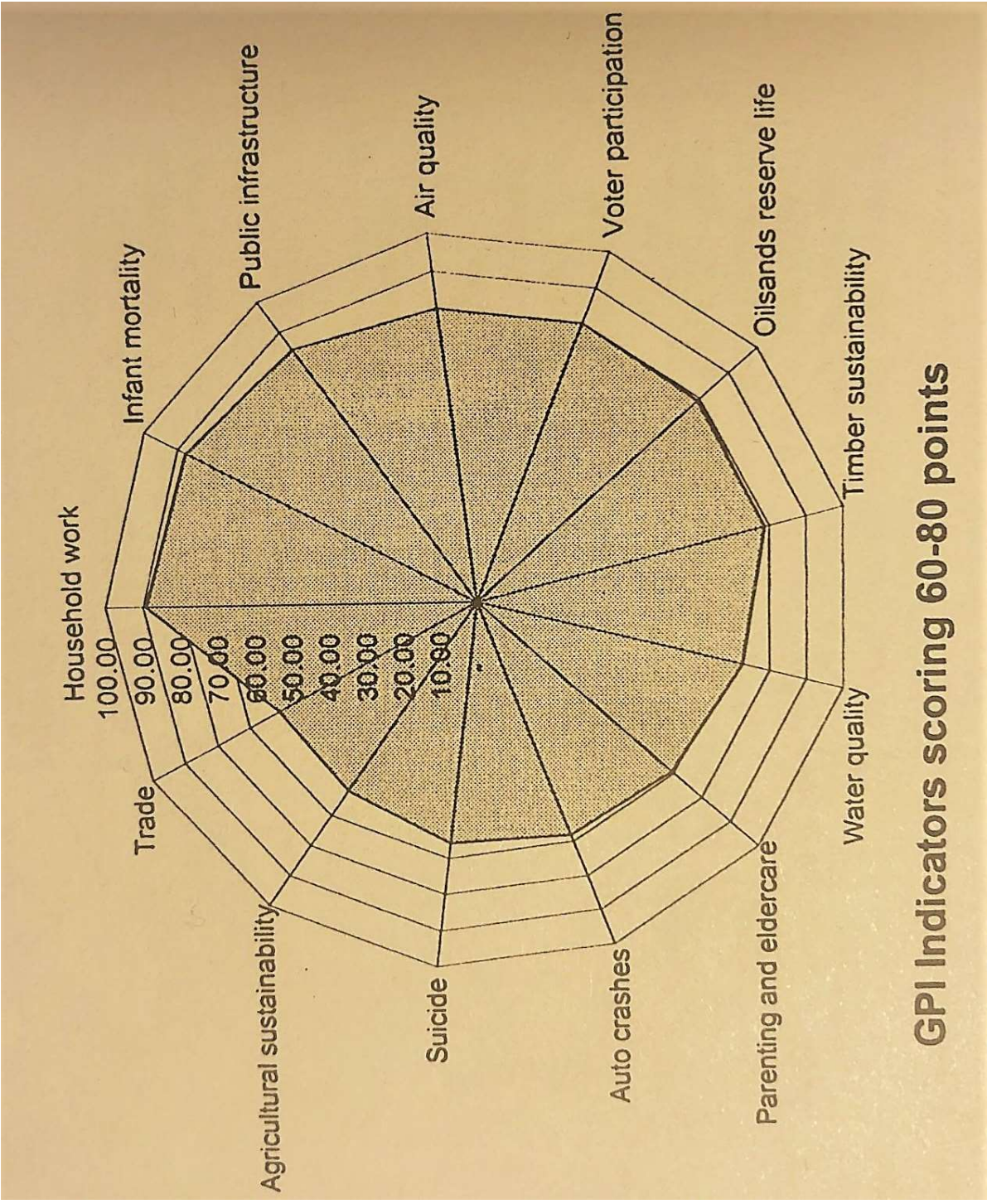


GPI Indicators scoring 0-40 points

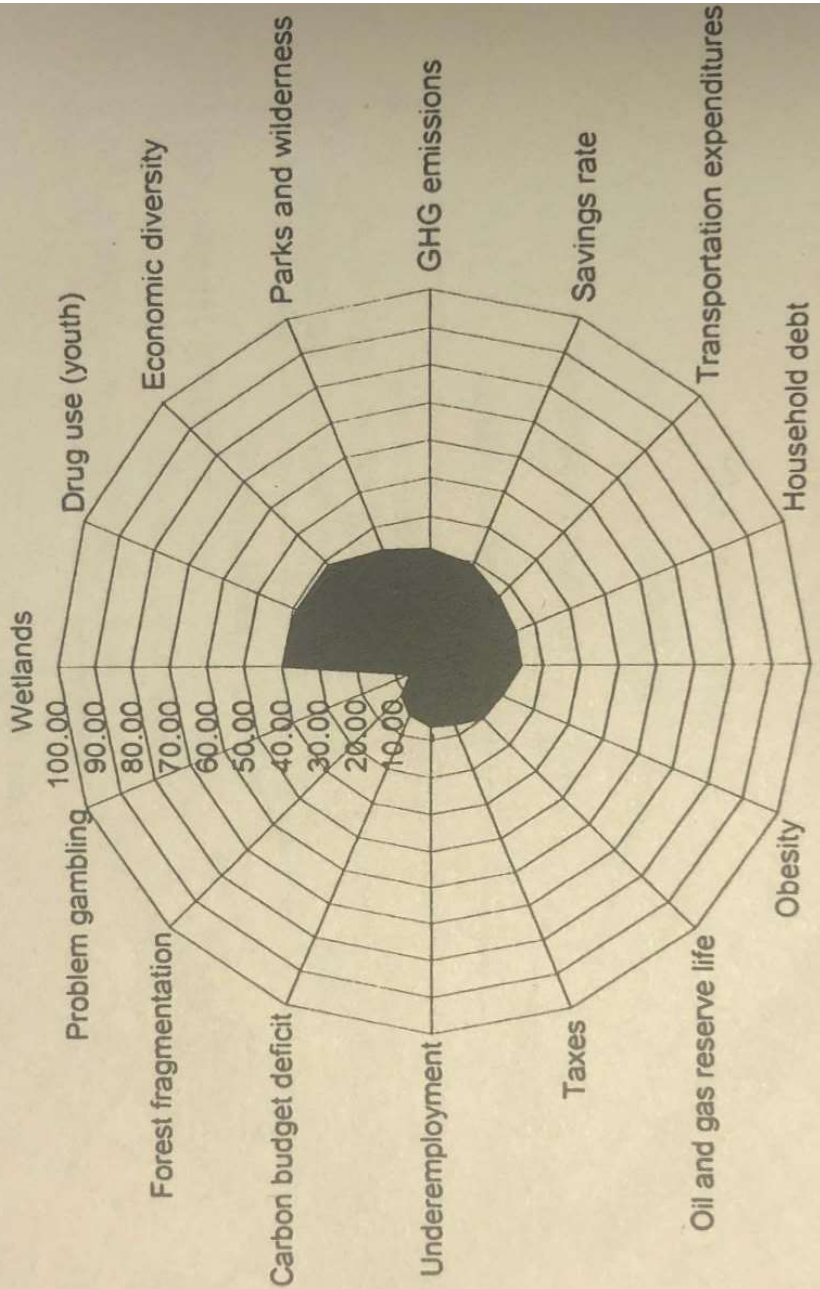
The Alberta GPI Project

Appendix D: Alberta GPIs Ranked





GPI Indicators scoring 60-80 points



GPI Indicators scoring 0-40 points

The Canada Well-Being Measurement Act was approved by a vote of 185 to 46 in the House of Commons. Motion M-385 states:

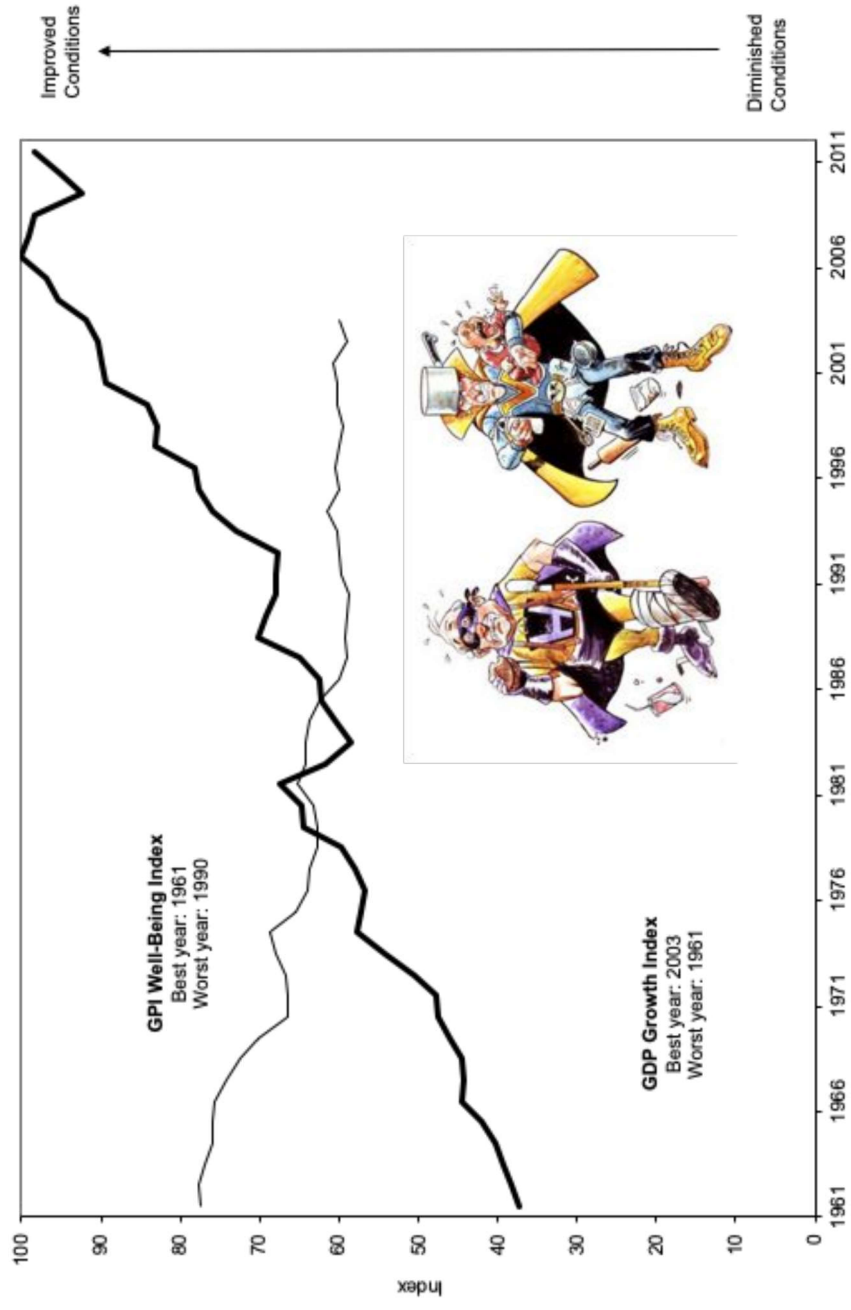
" ... that in the opinion of this House, the government should develop and report annually on a set of social, environmental and economic indicators of the health and well-being of people, communities, and ecosystems in Canada." *(See Hansard for June 2, 2003 at the Government of Canada Web site*

or <http://www.SustainWellBeing.net/7GI/Hansard-June2-03.shtml>)

The public wasn't involved, however, and the information is only intended for use by the Minister of Finance.

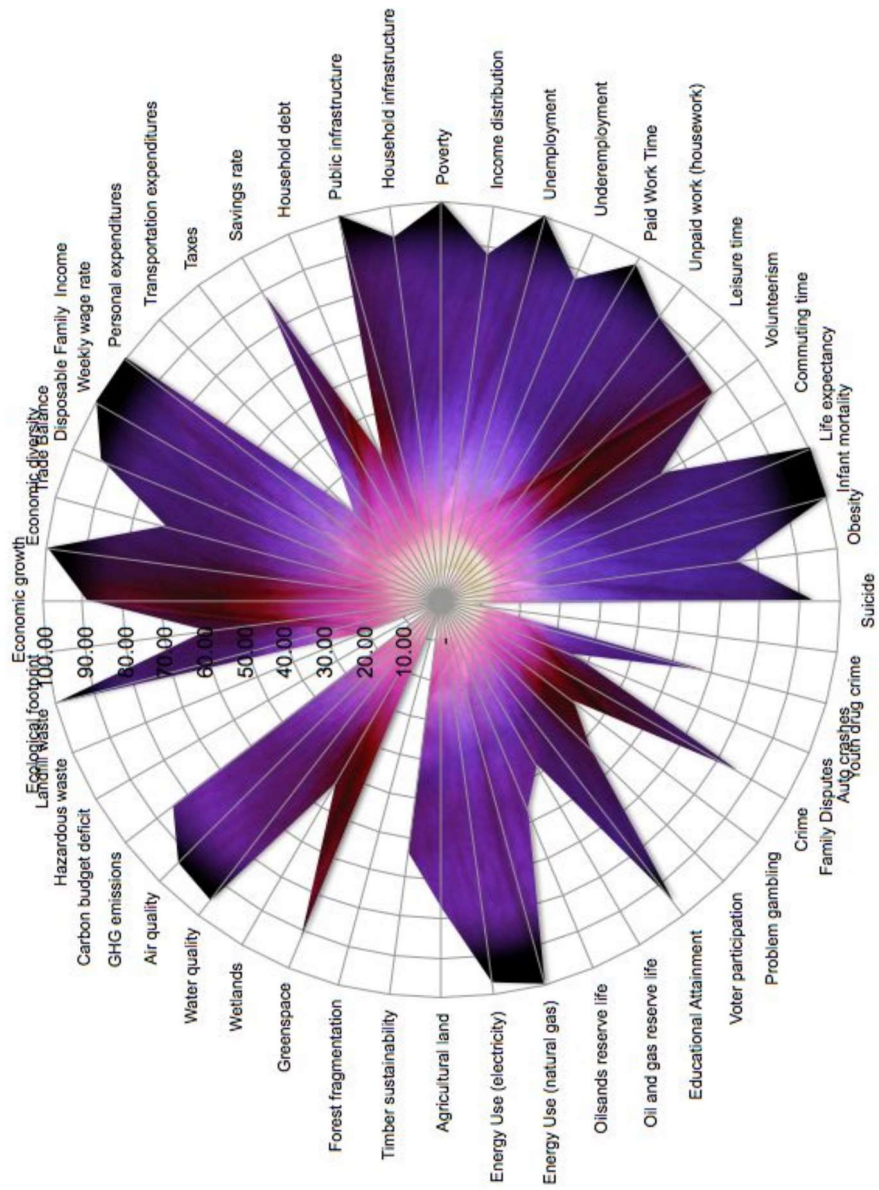
Nevertheless, it demonstrated that Martin understands that there is more to well-being than simply cash flow.

Alberta Genuine Progress Index, 2005

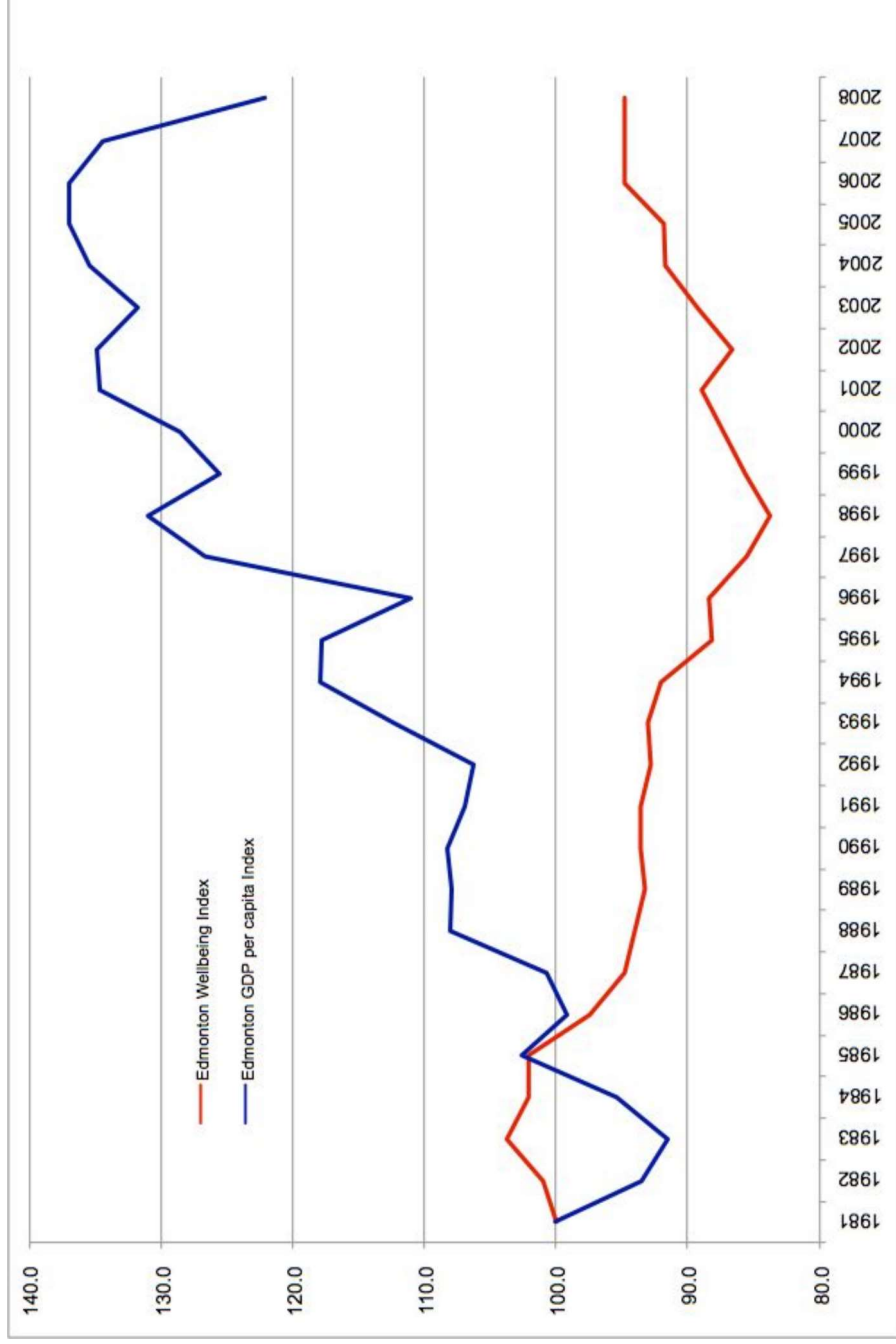


Source: Alberta GPI Accounts 1961-2013

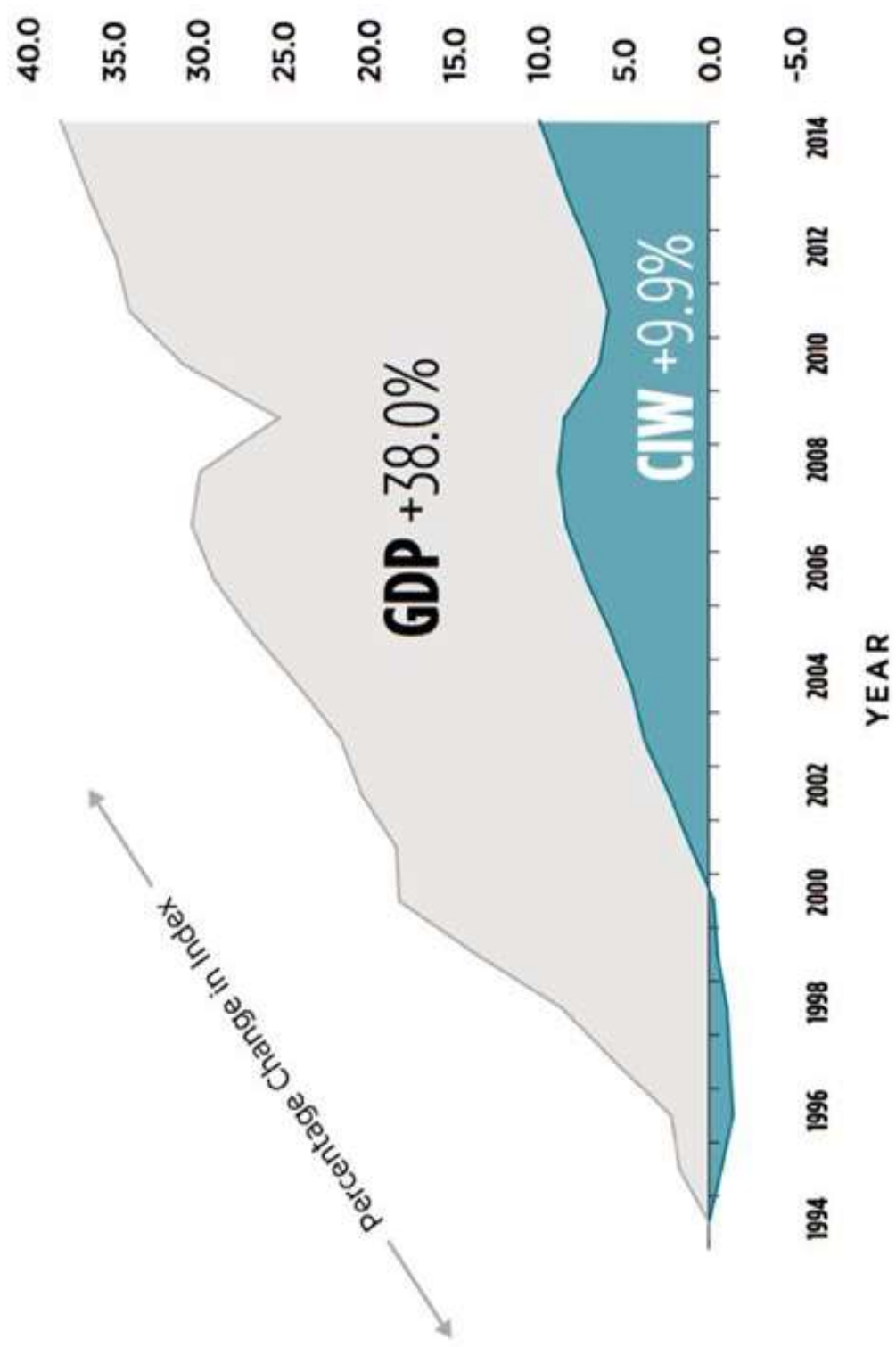
2008



The Genuine Wellbeing Index vs. GDP City of Edmonton, 1981-2008



Trends in the Canadian Index of Wellbeing and GDP (per capita) from 1994 to 2014



Community Well-being Baseline Inventory and Assessment

Financial Capital

- Economic vitality
- Living standards (income, living wages)
- Financial security
- Affordable housing
- Affordable-efficient government
- Perceived value for public services



Financial Capital

Human Capital

- Work
- Time balance
- Health
- Physical well-being
- Mental well-being
- Spiritual well-being
- Youth well-being
- Family well-being
- Learning



Human Capital

Built Capital

- Housing
- Public infrastructure
- Tangible assets (roads, band buildings, schools, utilities, engineered structures)
- Intangible assets (ideas, intellectual property, contracts,, art, culture)



Built Capital

Social-Cultural Capital

- Trust and sense of belonging
- Arts, sports and culture
- Safety and crime
- Equity and fairness
- Democratic engagement



Social Capital

Natural Capital

- Natural resources
- Land (forest, farm land, wetlands)
- Water (rivers, streams, lakes)
- Traditional land use
- Ecosystem goods and services
- Ecological footprint
- Energy use
- Waste management (landfills, recycling)
- Perceptions of the environment



Natural Capital

A well-being baseline inventory and assessment measures the current and historical physical conditions of well-being.



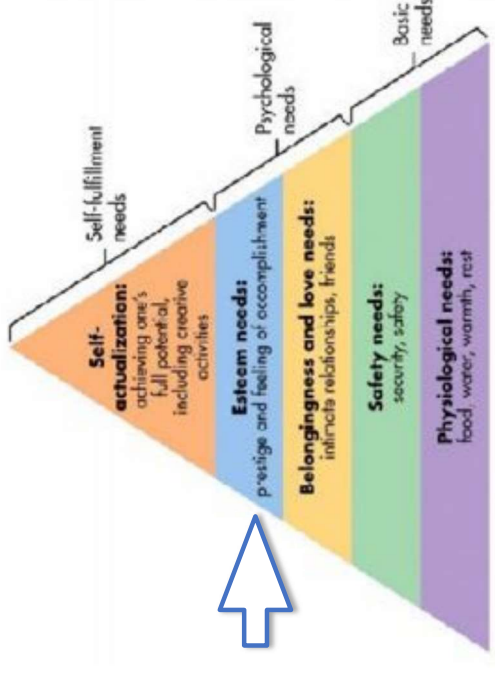
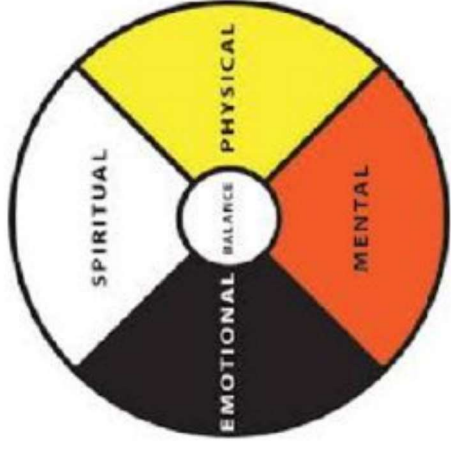
Opaskwayak Cree Nation (Manitoba)

State of Well-being 2020

Prepared by Mark Anielski
Anielski Management Inc.
November 11, 2020



Well-being at the individual level is measured using a subjective Well-being Survey where questions align with the four attributes of the human being (medicine wheel)

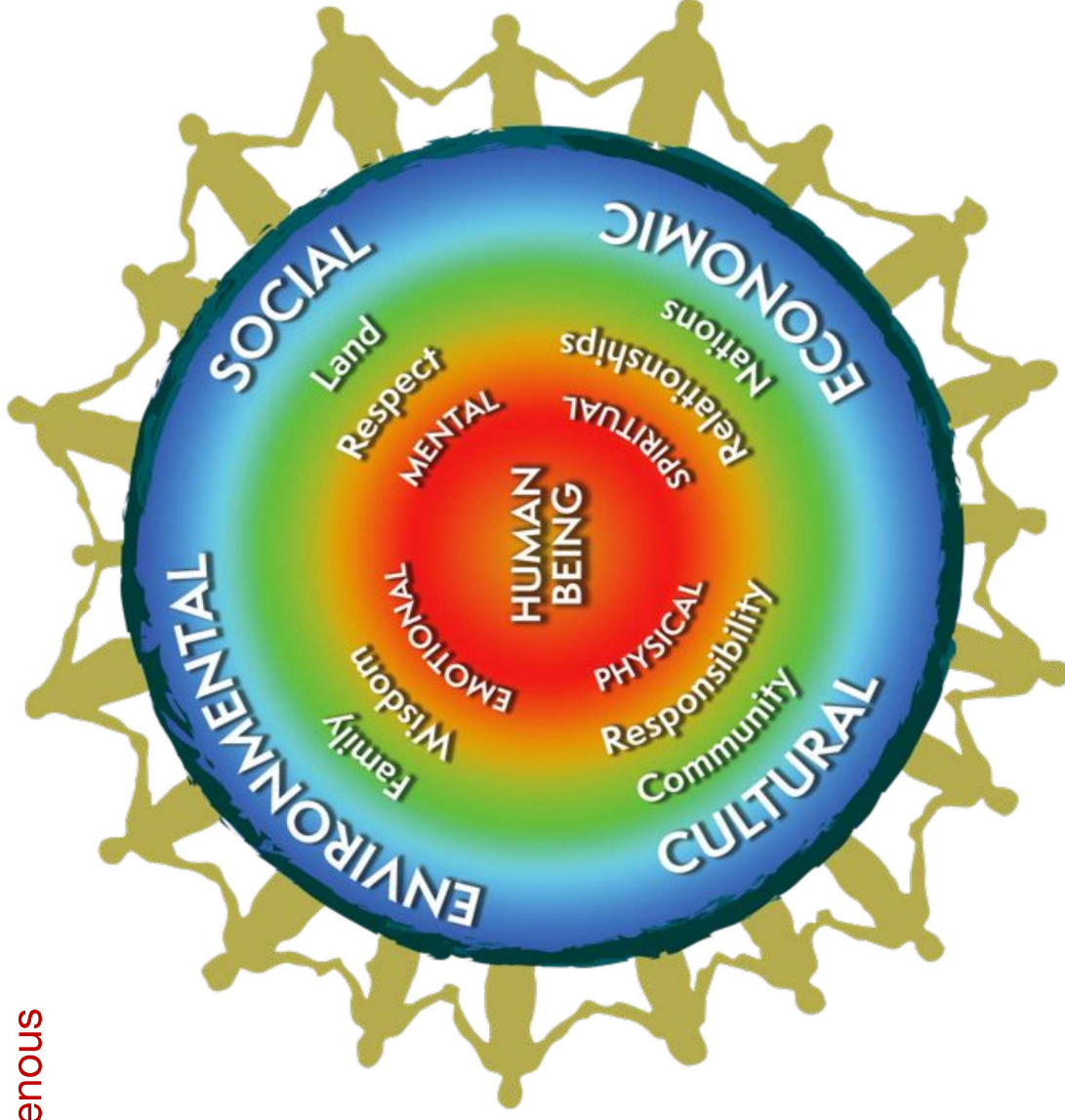


Medicine Wheel

Maslow's Hierarchy of Needs

The Maslow hierarchy of needs originated with the traditions of the Blackfoot Nation in Alberta, based on the teachings of the medicine wheel as the basis for understanding the human being.

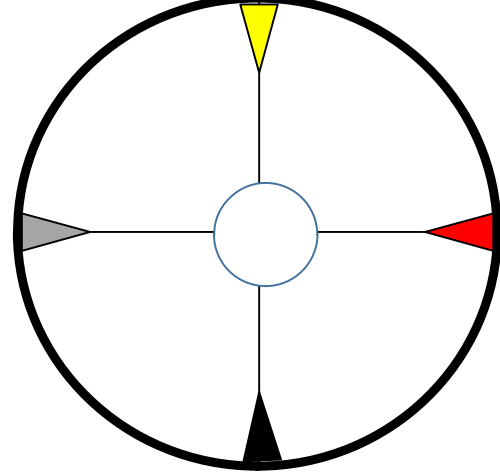
Measuring indigenous
well-being



The Medicine Wheel of Well-being

- Spend time doing things I enjoy
- Feel positive
- Little stress
- Ability to handle life challenges
- Ability to handle day-to-day life demands
- Doing things I enjoy
- Enough energy in life
- Un-loneliness
- Little anxiety

Mental



Physical

- Physical health
- Diet and eating habits
- Quality of sleep
- Use of traditional medicines
- Financial well-being
- Income meets life needs
- Economic conditions at OCN
- Work happiness
- Ability to develop personal skills
- Balance of work time and other personal time
- Satisfaction with access to sports and recreational facilities and activities
- Satisfaction with access to arts and cultural opportunities
- Satisfaction with access to informal education for skills
- Feeling safe walking alone at night

Emotional

- Belonging to community
- Trust of the community
- Trust of work colleagues
- Trust of local businesses
- Trust of O&O
- Feeling about quality of the natural environment
- Interaction with the natural environment and traditional territory

Spiritual

- Happiness
- Life Satisfaction
- Hope
- Joy
- Spiritual well-being
- Soul peace

Who are the happiest nations, 2019



Rank	Country	Life Satisfaction (1-10)
#1	Finland	7.81
#2	Denmark	7.65
#3	Switzerland	7.56
#4	Opaskwayak Cree Nation	7.54
#5	Iceland	7.50
#6	Norway	7.49
#7	Netherlands	7.45
#8	Sweden	7.35
#9	New Zealand	7.30
#10	Austria	7.29
#11	Luxembourg	7.24
#12	Canada	7.23

Source: World Happiness Report 2020, OCN Well-being Survey 2020

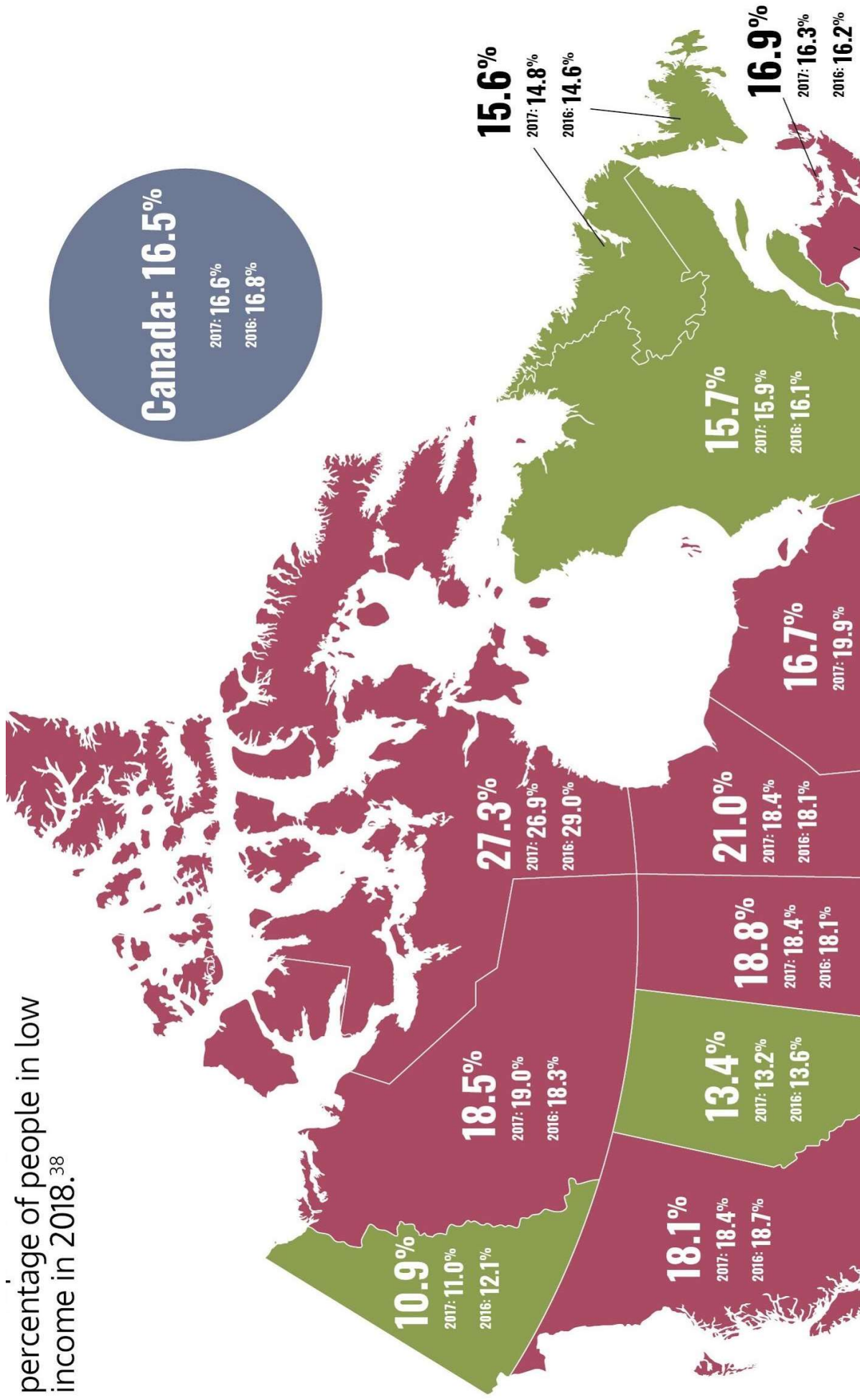


A Genuine Progress Index could restore balance to public policy and rekindle a sense of hope for those who despair at the decline of environmental health and social cohesion. Genuine progress could become the defining feature of a new government.



Poverty Trends 2020: Rights & Realities in Canada

percentage of people in low income in 2018.³⁸



Disparities in low income

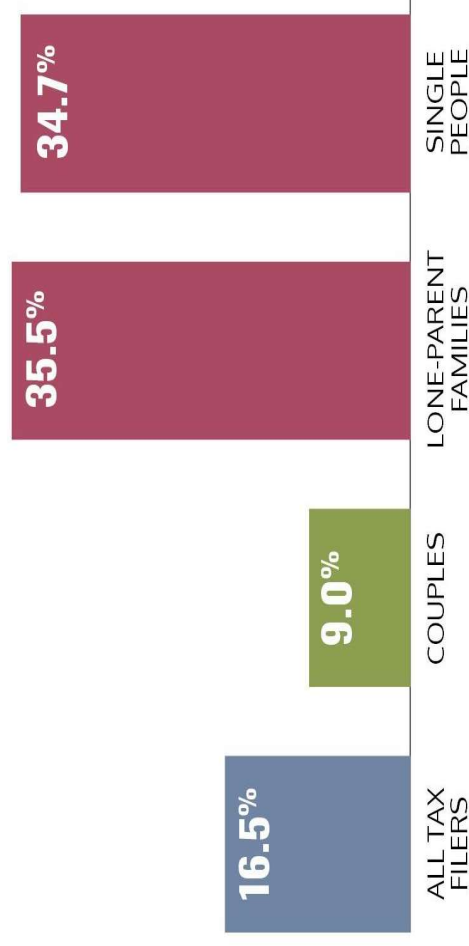
While these overall poverty rates are useful to give us a sense of just how many people are experiencing poverty in Canada, they can mask significant disparities in poverty rates among specific groups of people. This is not always easy to tease apart because of a lack of disaggregated data – information that can be analysed on the basis of ethnicity, gender identity, disability, or immigration status, for example.

Using the LIM for 2018, however, we can show the following differences in overall poverty rates experienced by different types of households.

Other data sources provide further insights into disparities in poverty rates among certain communities. According to Statistics Canada:

- In 2016, **81.3%** of all lone-parent families were headed by women. These households had half the median income of male lone-parent families.⁴²
- **20.8%** of racialized people experienced poverty in 2016, compared to 12.2% of white people.⁴³
- **23.6%** of Indigenous peoples experienced poverty in 2016 compared to 13.8% for non-Indigenous people.⁴⁴
- In 2014, **23.2%** of people with a disability lived in poverty, compared to 8.6% of those without a disability.⁴⁵

Poverty rates by household type⁴¹



An Economy *of* Well-Being

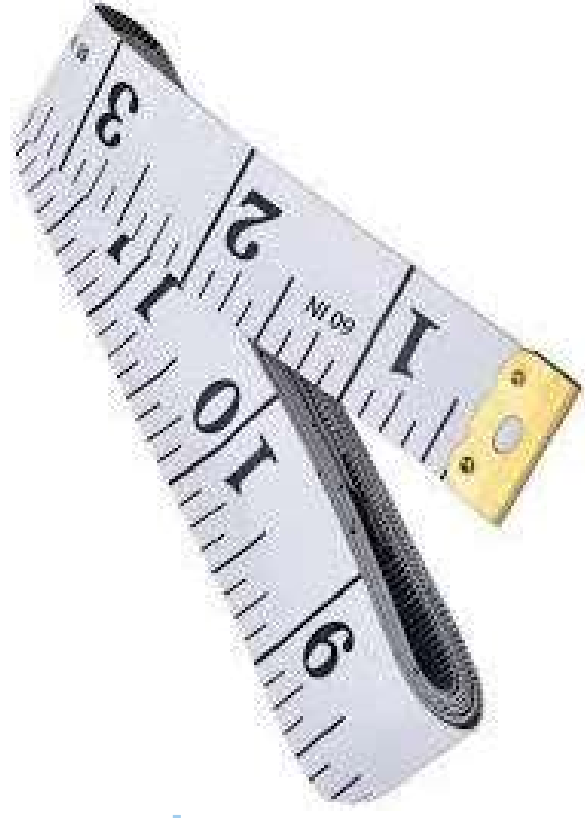


COMMON-SENSE TOOLS *for* BUILDING

Genuine Wealth
and Happiness

Mark Anielski

Punchline: In case you Missed it



**We should measure what citizens value
& make it visible to all to create economies of
well-being**

THANK YOU



<https://canadiancor.com>

A Presentation by A CACOR Member

Please consider a **donation** if you are watching and not a member:

Email: nigel.weir@sympatico.ca for further information