

# ecological economics

sustainability

efficiency

distribution

# ecological economics

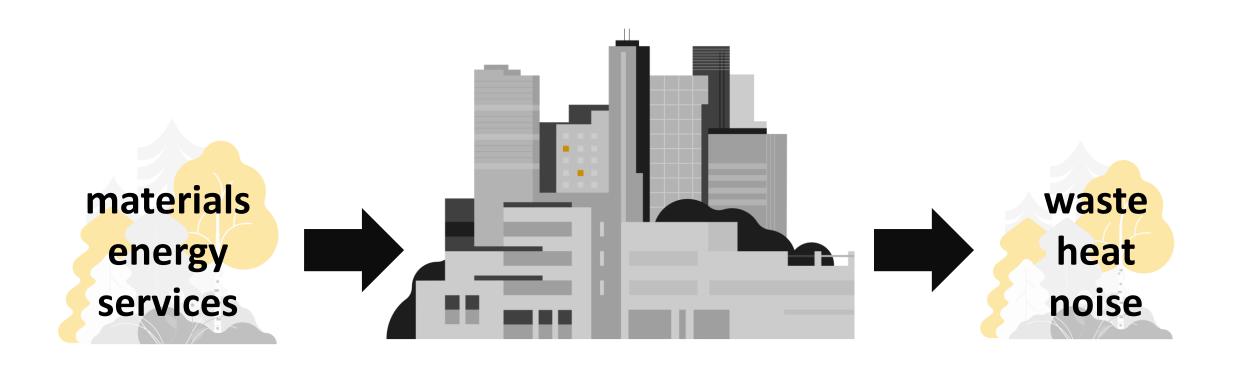
stewardship of human, built, natural assets

getting the most from using the least

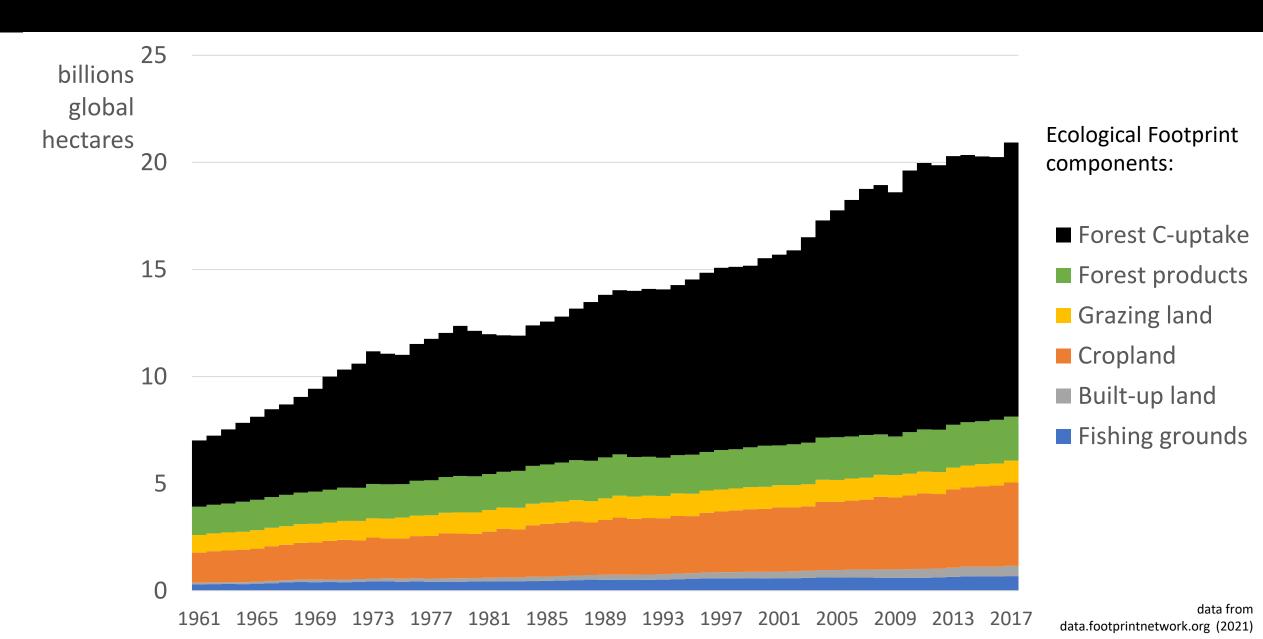
who has, who gives, and who gets

pandemic
planet
people
profit

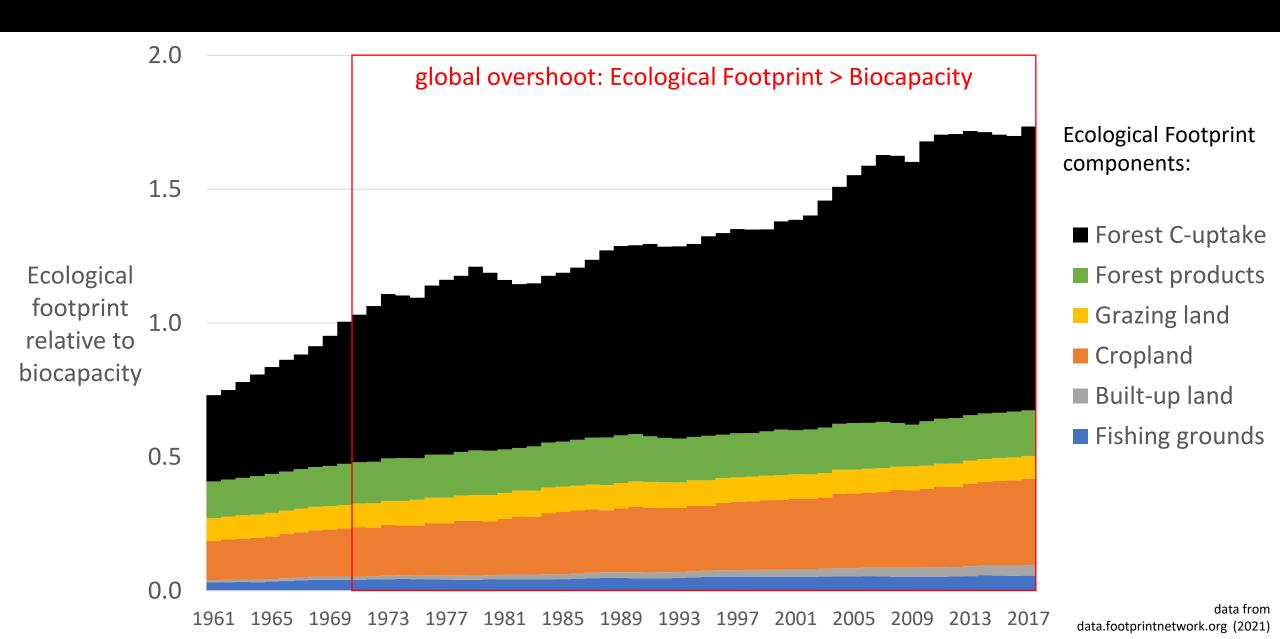
# planet · people



#### planet · people



#### planet · people



# profit as surplus economic value

market value



# non-market value

(+\$) unpaid care ecosystem services

(-\$) pollution and depletion pain and deprivation

5

prevent inefficiencies by internalizing non-market value

# profit as surplus economic value

# earned surplus



#### unearned surplus

return on effort © sole proprietorship ©

gains beyond effort

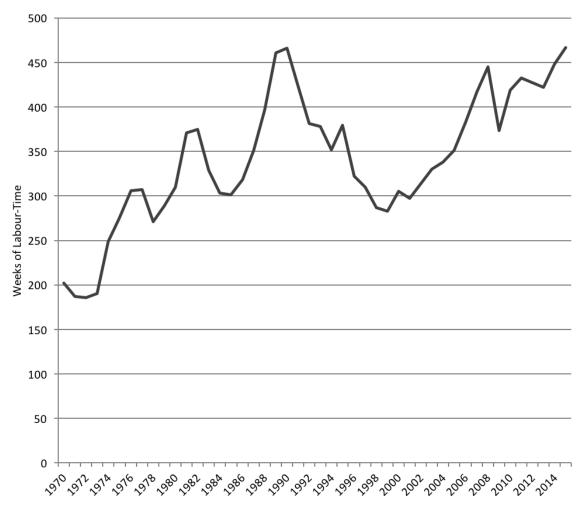
insider advantages

prevent inequities by reducing and redistributing unearned surplus

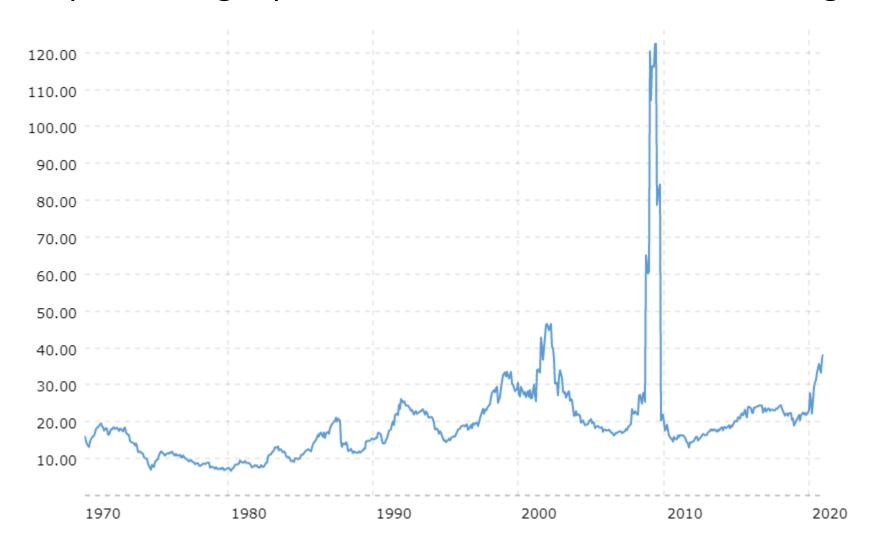
#### Cash Cost of Purchasing a House in Weeks of Labour-Time: Canada



#### Mortgage Cost of Purchasing a House in Weeks of Labour-Time: Canada



#### Cost of purchasing equities on S&P 500 as Price-to-Earnings ratio



Cost of purchasing equities on S&P 500 as Price-to-Earnings ratio

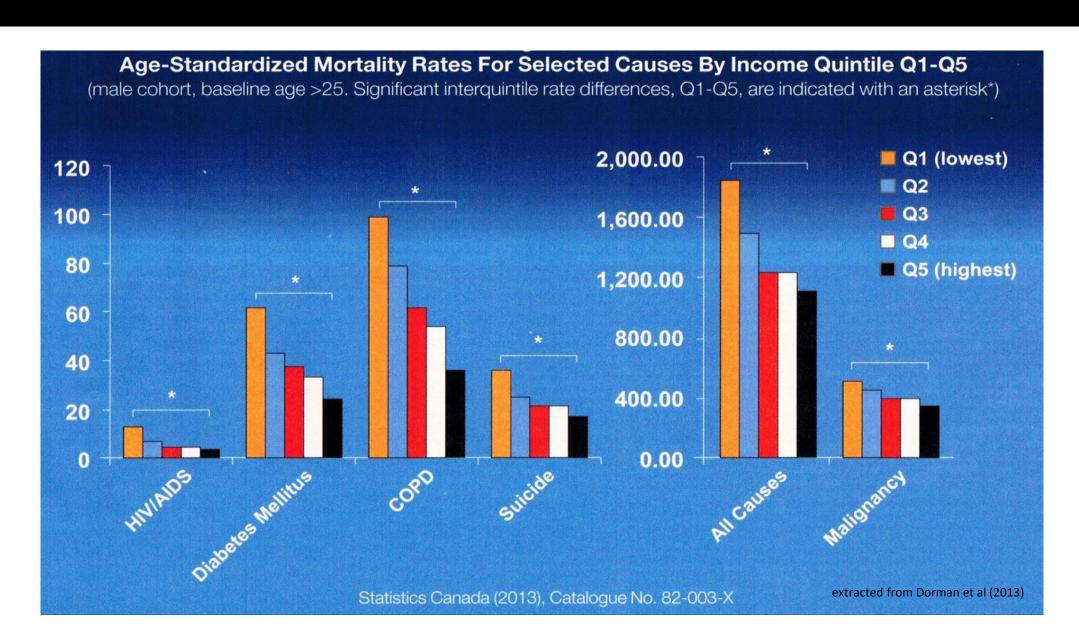


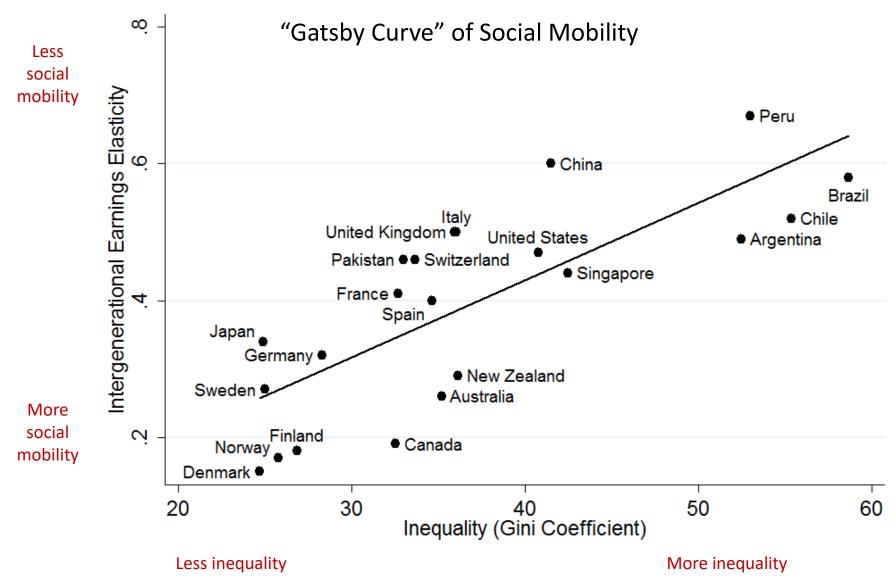
Figure 9.2. Income inequality in Anglo-saxon countries, 1910-2010 24% 22% ■U.S. →U.K. Share of top percentile in total income 20% 18% -O-Canada → Australia 16% 14% 12% 10% 8% 6% 4% 2% 0% 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010

The share of top percentile in total income rose since the 1970s in all Anglo-saxon countries, but with different magnitudes. Sources and series: see piketty.pse.ens.fr/capital21c.

Figure 9.5. The top 0.1% income share in Anglo-saxon countries, 1910-2010 12% 11% ■U.S. → U.K. 10% Share of top 0.1% in total income -O-Canada → Australia 3% 2% 1% 0% 1950 1910 1920 1930 1940 1960 1970 1980 1990 2000 2010

The share of the top 0.1% highest incomes in total income rose sharply since the 1970s in all Anglo-saxon countries, but with varying magnitudes. Sources and series: see piketty.pse.ens.fr/capital21c.





we need a broader support system that directly supports people:

basic income that flows quickly
basic jobs that are plentiful and meaningful
basic provisions of necessary goods and services
basic wealth through common asset trusts

we should be skeptical about indirect supports flowing from stimulus

Sector stimulus needed to generate one job in the sector













\$ 1.6 M \$ 422 K \$ 0.1 M \$ 56 K

\$ 2.5 M \$ 352 K \$ 0.1 M \$ 60 K \$ 0.3 M \$ 135 K \$ 0.1 M \$ 88 K

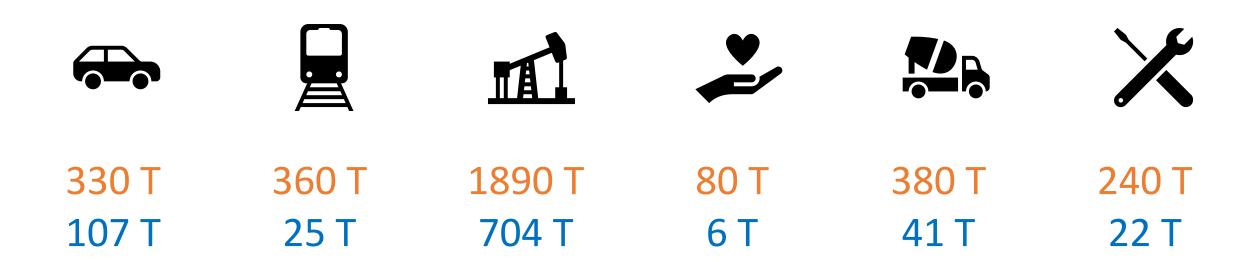
Sector stimulus needed to generate one job in the economy

Sector stimulus needed for \$1 in wage income in that sector



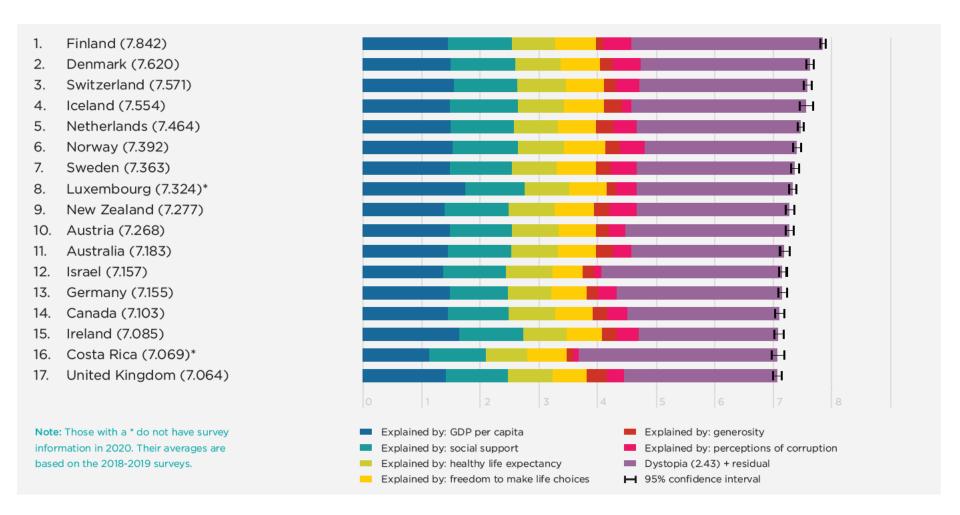
Sector stimulus needed for \$1 in wage income in the economy

#### Economy-wide GHGs generated per \$M output from the sector

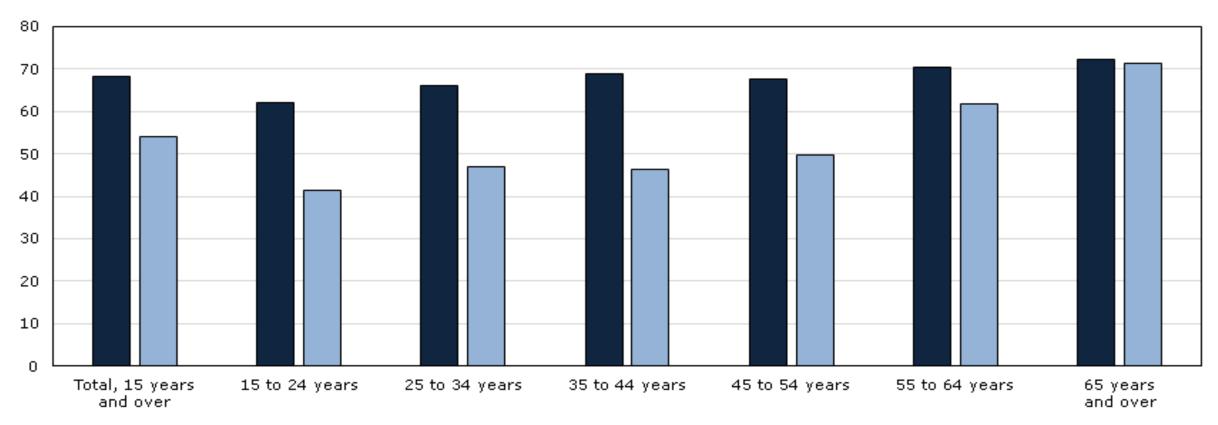


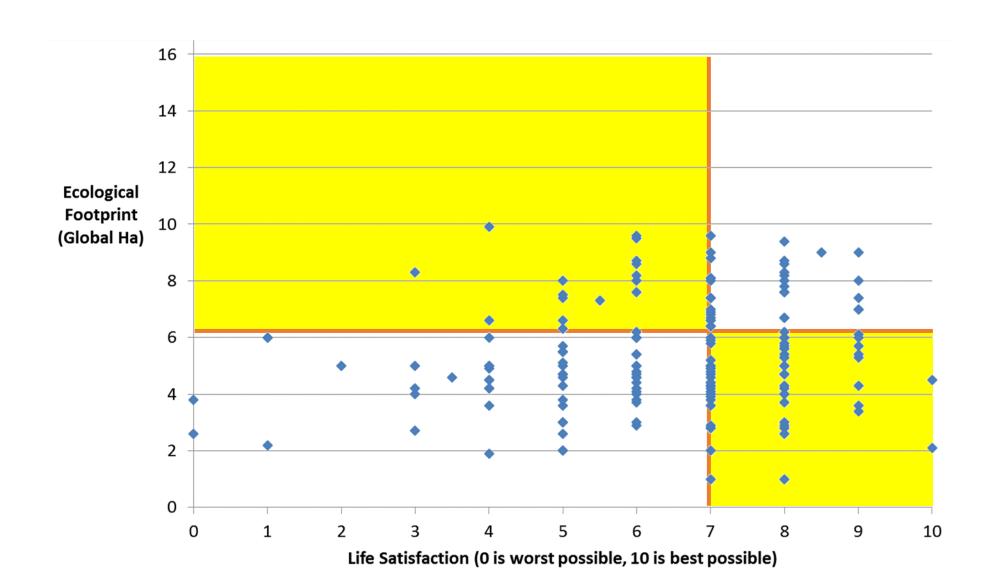
Economy-wide GHGs per job generated by stimulating the sector

#### we need to target better measures of performance; e.g. life satisfaction



We need to be attentive to the distribution of life satisfaction e.g. percent of Canadians, by age group, reporting excellent or very good mental health during covid-19 period (light blue) versus same time of year in 2018 (dark blue)





 $\max\left(\frac{\text{Human wellbeing}}{\text{Human metabolism of ecosystems}}\right)$ 

# $max \left( \frac{long \ lives \ equitably \ lived \ with \ high \ life \ satisfaction}{ecological \ footprint} \right)$

subject to sustaining biocapacity

#### Conclusions

- Choose Ecological Economics to address issues of sustainability and efficiency and equity
- Measure our metabolism of nature and live within its regenerative limits
- Don't undermine non-market values in the pursuit of market value
- Prevent inefficiencies by internalizing non-market value
  - Accelerate the adoption of the polluter pay principle, especially for ghgs
  - Conserve nature to sustain its provision of unpriced ecosystem services
  - Recognize and respect the economic importance of unpaid care
- Prevent inequities by reducing and redistributing unearned surplus
- Recognize that wealth is more unequally distributed than income
- Recognize that income inequality is also a health problem
- Recognize that income inequality can also persist across generations
- Canada needs broader support systems that directly supports people
- Be skeptical about indirect supports flowing from stimulus
- Economic policy should target better measures of performance

#### Statistics Canada Sectors represented by icons



Automobile and light-duty motor vehicle manufacturing [BS336110]



Urban transit systems [BS485100]



Oil sands extraction [BS211140]



Nursing and residential care facilities [BS623000]



Transportation engineering construction [BS23C100]



Repair and maintenance (except automotive) [BS811A00]

#### Resources I would encourage you to explore

- Ecological Footprint data: <a href="https://data.footprintnetwork.org">https://data.footprintnetwork.org</a>
- Ecological Footprint work: <a href="https://footprint.info.yorku.ca">https://footprint.info.yorku.ca</a>

- Life satisfaction data and analysis: <a href="https://worldhappiness.report/ed/2021/">https://worldhappiness.report/ed/2021/</a>
- Happy Planet Index: <a href="http://happyplanetindex.org/">http://happyplanetindex.org/</a>

 Ecological Economics: Online CANSEE conference May 27-29. https://cansee.ca/cansee2021/

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