

Capitalizing on BC's Strategic Advantages during Economic Recovery

Andrew J. Weaver

Professor

School of Earth & Ocean Sciences
University of Victoria



Financial Management
Institute: Victoria Chapter

Hotel Grand Pacific
Victoria, B.C.

May 25, 2022

Capitalizing on BC's Strategic Advantages during Economic Recovery

Andrew J. Weaver

Former MLA
Oak Bay Gordon Head

Former Leader
BC Green Party



Financial Management
Institute: Victoria Chapter

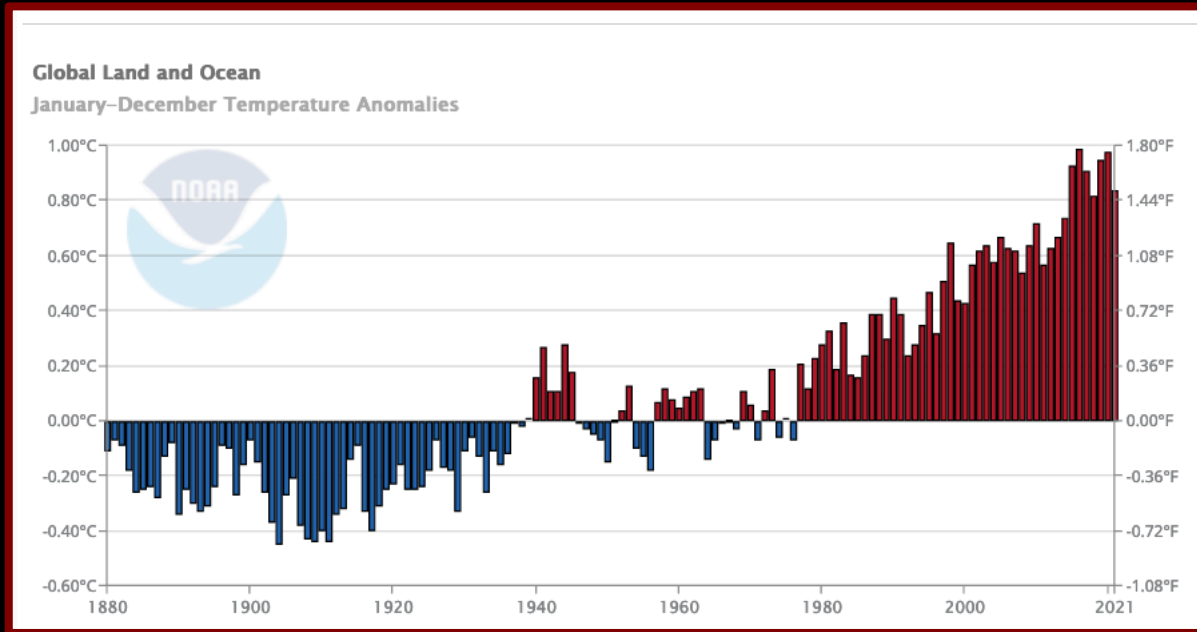
Hotel Grand Pacific
Victoria, B.C.

May 25, 2022

**Andrew
WEAVER**
for
OAK BAY - GORDON HEAD MLA
green
PARTY OF BC



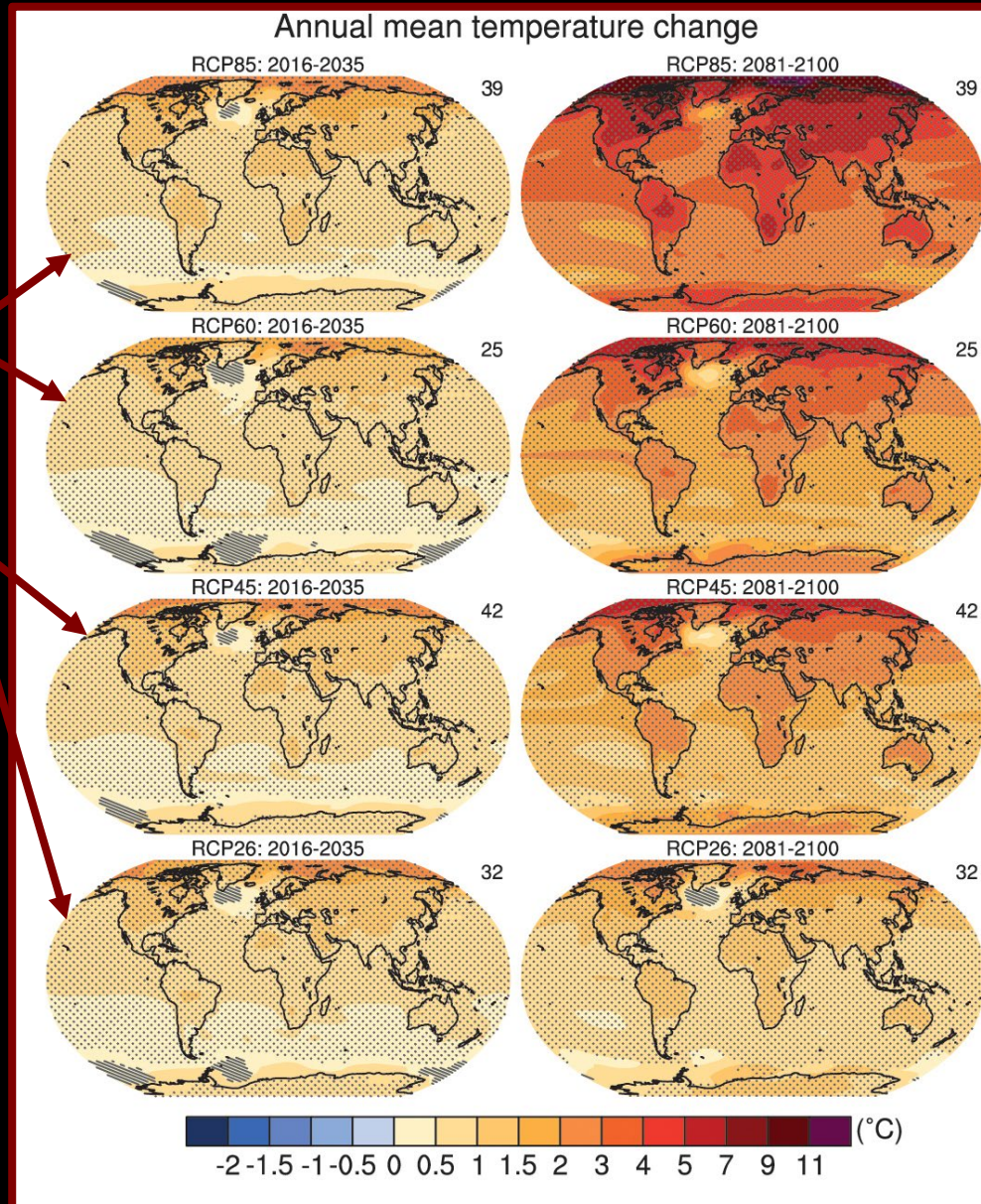
The State of the Climate System



Surface temperature anomaly relative to the 1901–2000 average

Year	Temperature Anomaly (°C)
2016	1.00
2020	0.98
2019	0.95
2015	0.93
2017	0.91
2021	0.84
2018	0.83
2014	0.74
2010	0.73
2013	0.68
2005	0.67
2009	0.65
1998	0.65
2012	0.64

Projections of future climate (Annual Mean) ⁴



0.5 °C globally warmer in all scenarios

3.7 °C globally warmer

2.2 °C globally warmer

1.8 °C globally warmer

1.0 °C globally warmer

Average from many models (relative to years 1986–2005)

Intergenerational Equity

So why should We care?

Let's assume we collectively agree about the importance of intergenerational equity

- 1) Widespread Species Extinction
- 2) Geopolitical Instability

2015 in Paris Agreement

- Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change

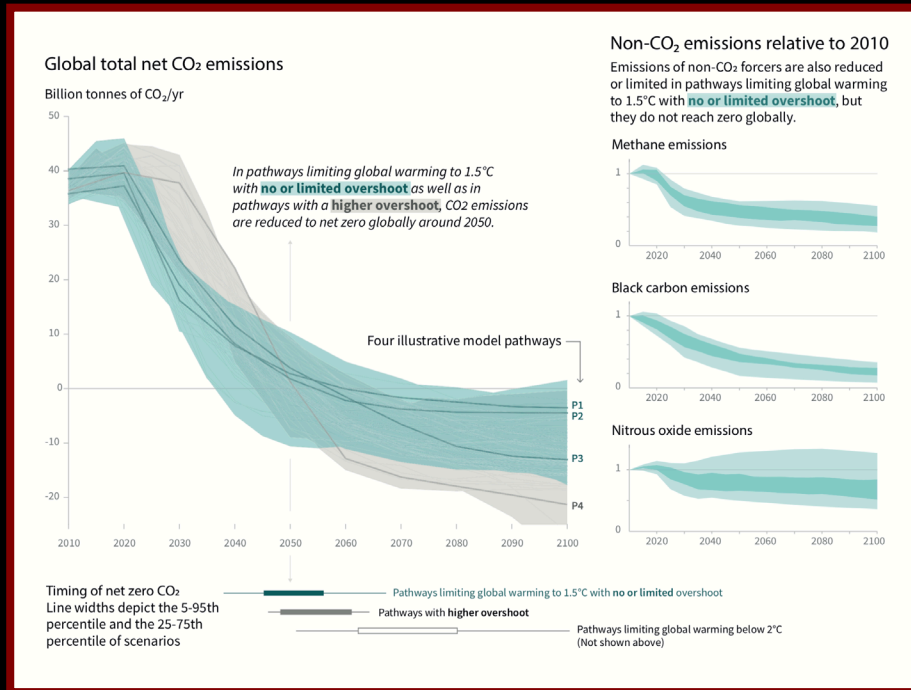
→ Destined to be a disappointment unless border tax adjustment issue is resolved



The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to help producers of goods and services, exporters, and importers conduct their business

Global Warming of 1.5 °C : Special IPCC report, 2018

7

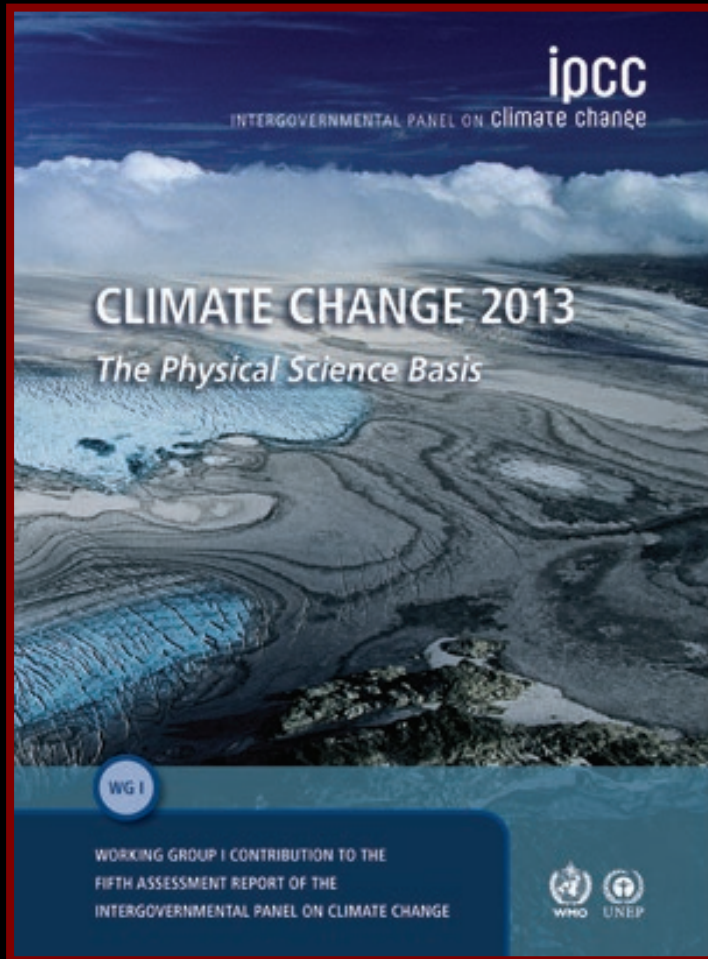


We have 12 years to limit climate change catastrophe, warns UN

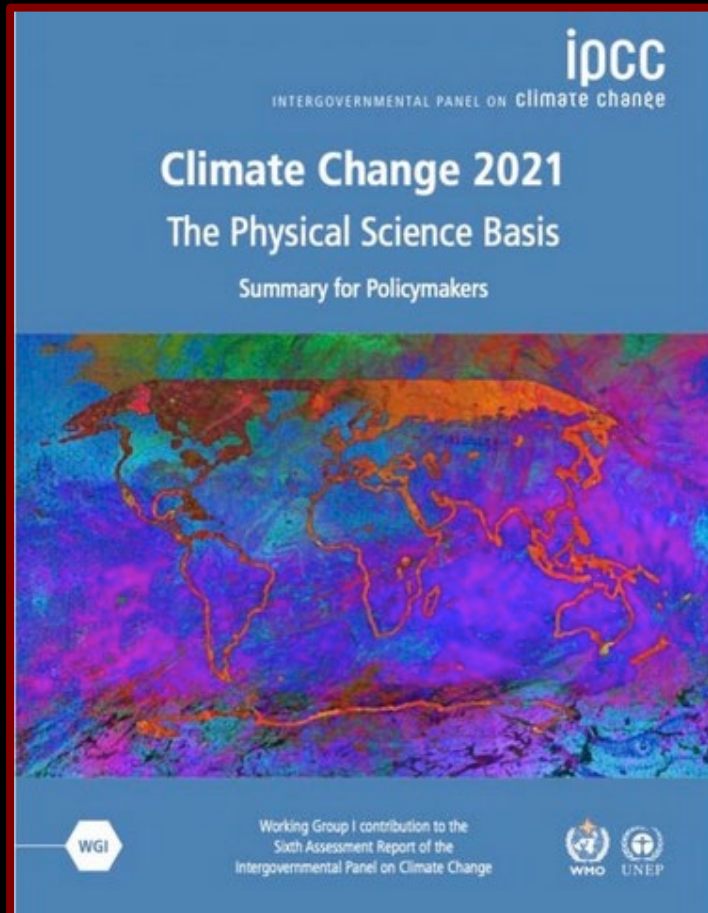
Urgent changes needed to cut risk of extreme heat, drought, floods and poverty, says IPCC

- 1) Forget about 1.5 °C
- 2) Forget about 2.0 °C
- 3) All hands on deck for 3.0 °C





More of the Same
With Greater Certainty



Even More of the Same
With Even Greater Certainty

Climate change presents the greatest opportunity for innovation, creativity and economic prosperity the world has ever seen

Every environmental challenge should be seen as an opportunity for innovation

Instead of dwelling on the hopelessness of the problem, focus on the excitement of developing solutions

Opportunity for Innovation

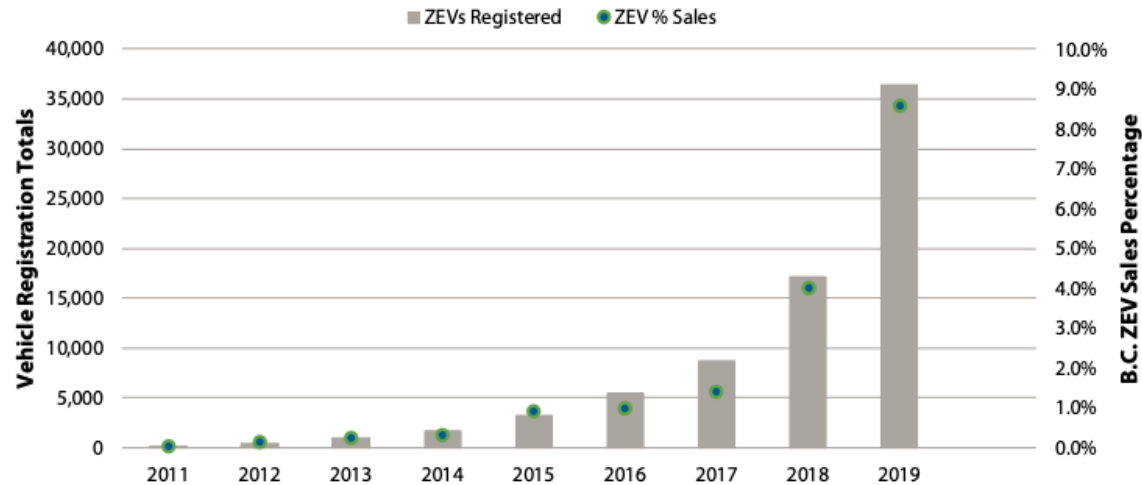
- 1) Reduce emissions
- 2) Negative emissions

Opportunity #1: Electrification of everything

There is no room for LNG or any other expansion of fossil fuel infrastructure if we wish to meet BC or international targets

Opportunity #1: Electrification of everything

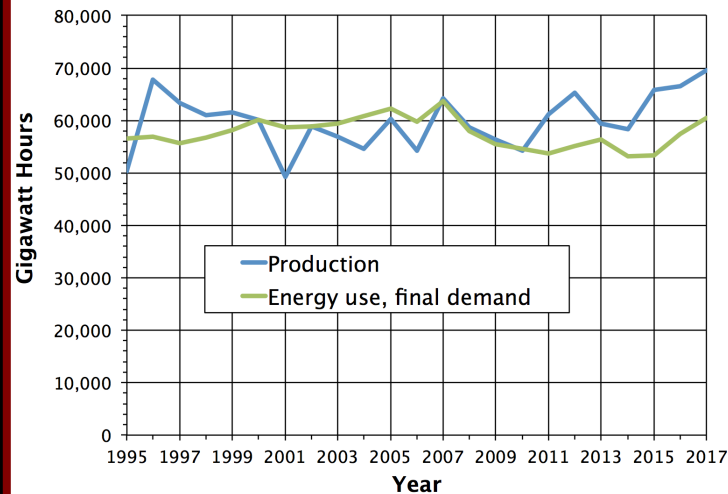
Light-Duty Zero Emission Vehicle Registration Totals and Sales Percentages in B.C. (2011 - 2019)



Data source: ICBC registration data and CleanBC Go Electric program data.

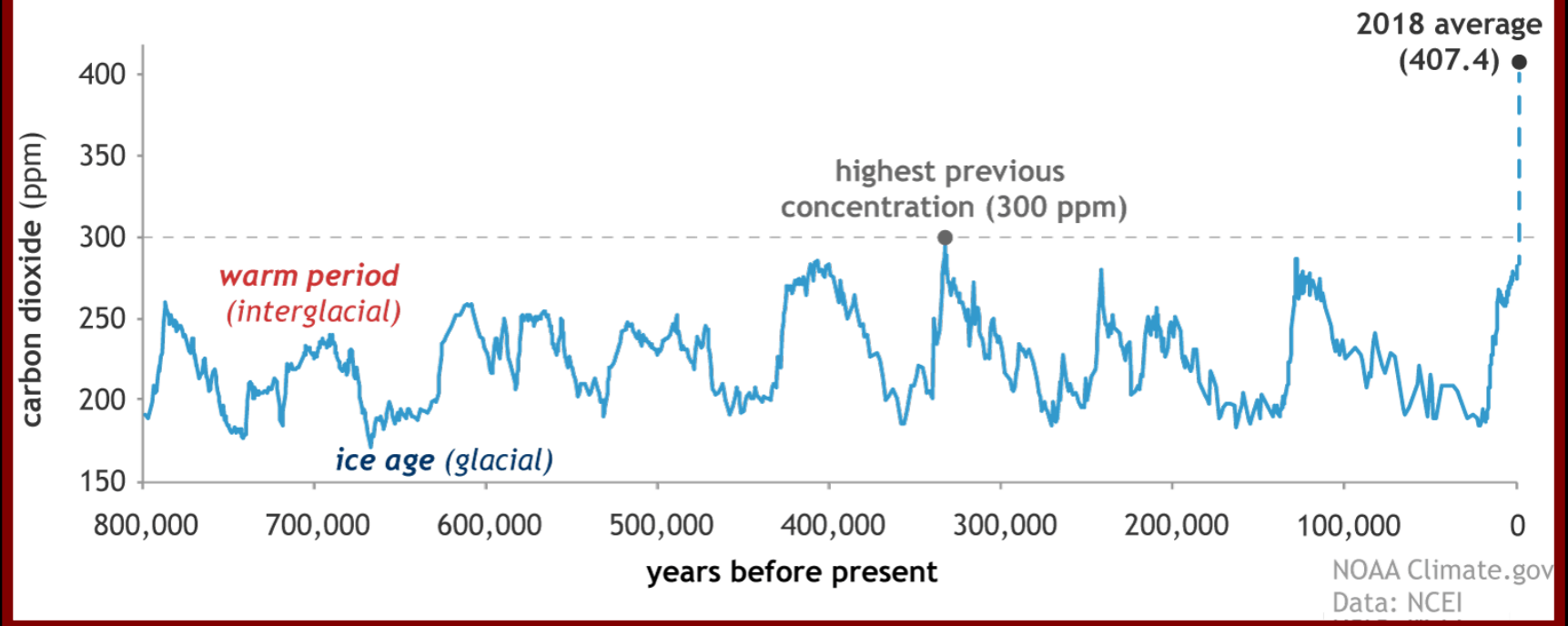
British
Columbia

Primary electricity, hydro and nuclear, primary energy



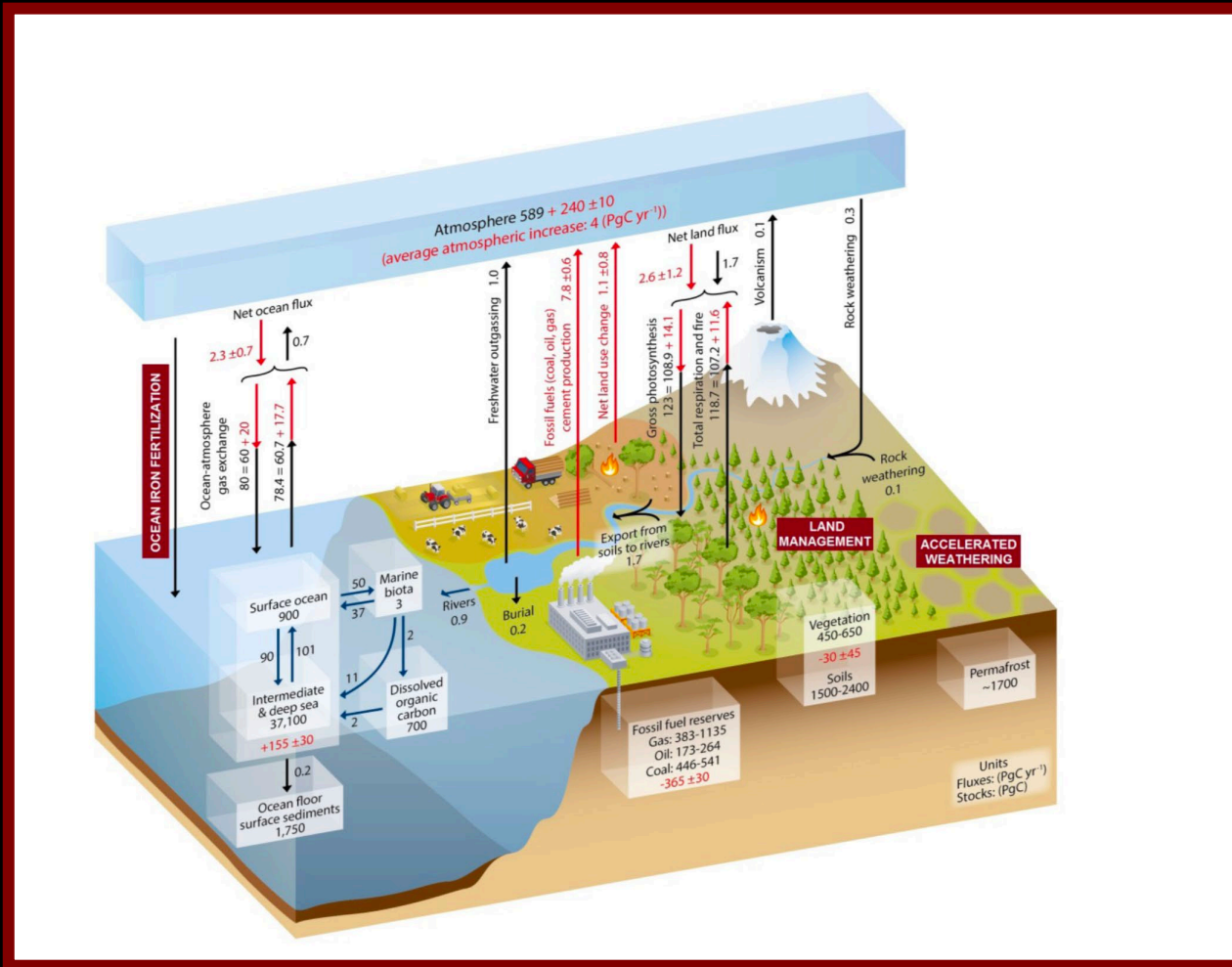
Opportunity #2: Negative Emissions

CO₂ during ice ages and warm periods for the past 800,000 years



- To reduce atmospheric CO₂ by 1ppm/yr
 - Require 4.9 GtC/yr of negative emissions
 - ➡ Outgassing from ocean
 - ➡ Less effective terrestrial sink

Global Carbon Cycle



- 1) Increasing natural removal process
- 2) Decreasing natural emissions process

1) Afforestation/Reforestation



2) Biochar

3) Soil capture



4) Synthetic weathering

5) Ocean fertilization / Blue carbon



The international science community
has done its job

Now its time for governments worldwide to respond

Have we reached a tipping point in public
support for substantive action to reduce
greenhouse gas emissions?

Greta Thunberg and the Youth Climate Strikes



Victoria: September 27, 2019

The Post COVID Opportunities



Opinion / Op-Ed



Andrew Weaver: 'New normal' an opportunity to create socially, environmentally and fiscally resilient policies

OPINION: In light of the threat of pandemics, growing income inequality, and climate change, as well as the changing nature of work, modern economies need to quickly prepare.

Andrew Weaver

May 24, 2020 • May 24, 2020 • 5 minute read • [Join the conversation](#)



Independent MLA Andrew Weaver believes the province should be setting up seed funding mechanisms to allow the B.C.-based creative economy sector to leverage venture capital from other jurisdictions to our province. PHOTO BY CHAD HIPOLITO /THE CANADIAN PRESS

- Various commentators suggest we are heading into a *new normal* for business and, more generally, society as a whole.
- It's far from clear what that *new normal* looks like
- Therein lies an incredible opportunity for the creation of long-term socially, environmentally and fiscally resilient & sustainable policies for British Columbia
- *Uncertainty* seems to be the only thing *normal* in our daily lives

The Post COVID Opportunities

- Netherlands ranks 131st in the world in terms of land area
- Netherlands is the world's second largest exporter of agricultural goods
- Only possible because of the country's focus on high value products, investments in innovation ecosystems, support for supply chain development, and strong land use policies.



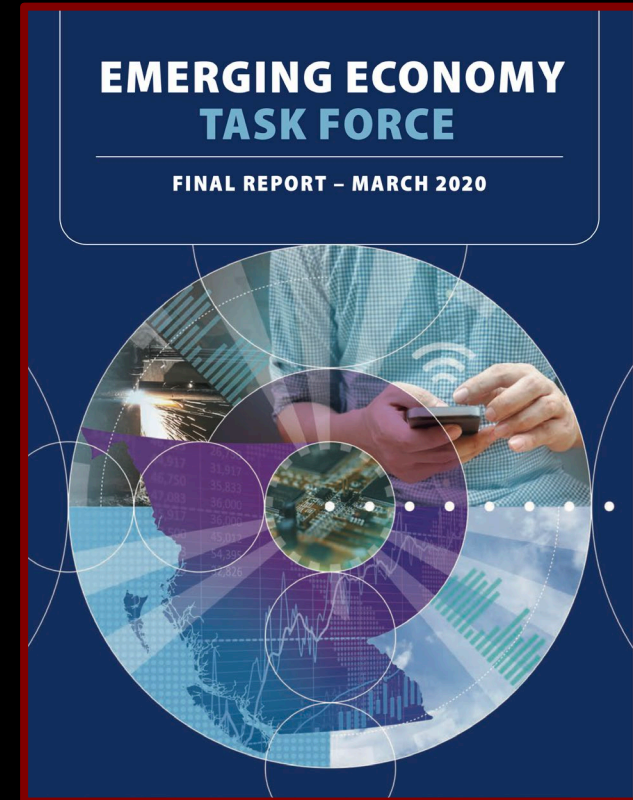
The Post COVID Opportunities

The emerging economy

- Rapidly evolving
- Innovation-driven
- Diverse and inclusive
- Low-carbon, circular & sustainable

Trends influencing B.C.'s economy

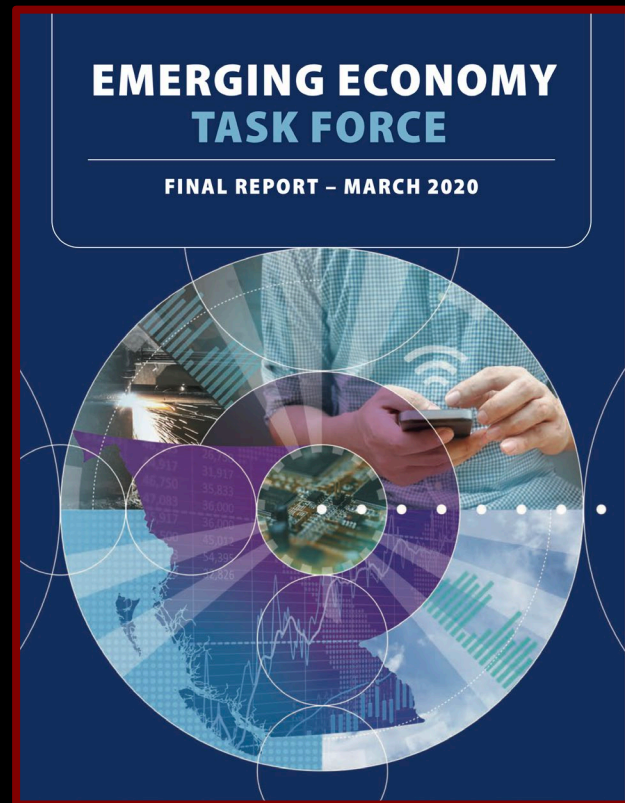
- Technology and Innovation
- Environmental Degradation & Climate Change
- Social and Demographic Shifts
- Economic Inequality



The Post COVID Opportunities

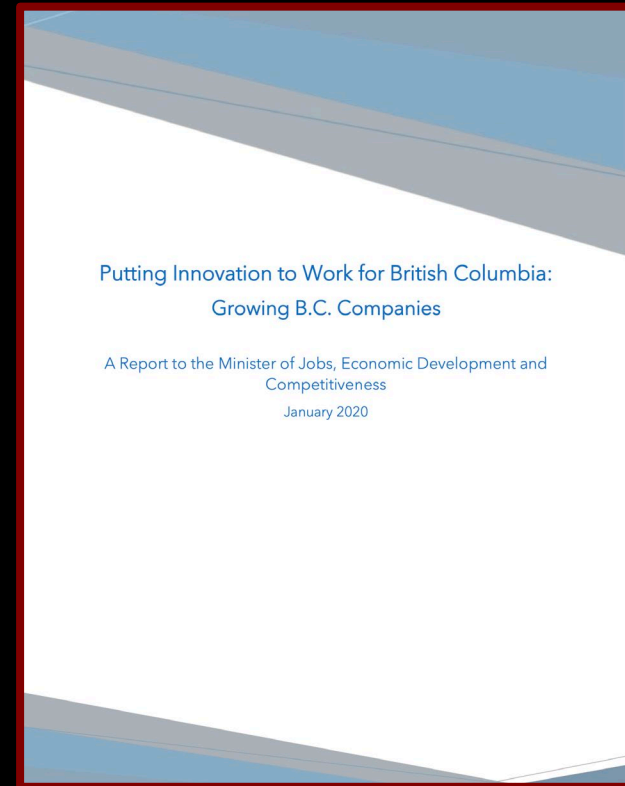
Strategic priorities

1. Embracing technology and innovation
2. Leveraging B.C.'S green economy
3. Building a highly skilled and adaptable workforce
4. Ensuring an effective enabling ecosystem
5. Demonstrating public sector leadership



The Post COVID Opportunities

1. Fund the establishment and operation of Innovation Precincts across B.C.
2. Support the development of emerging technology clusters
3. Utilize the CleanBC plan as an economic driver
4. Incent and protect intellectual property



Modern economies need to quickly prepare, be nimble, diversified and focus on regional strategic strengths.

What has worked in the past will not work in the future

British Columbia's strategic advantages

1. British Columbia is one of the most beautiful places anywhere to live. As such, we can attract to BC and retain the best and brightest worldwide because of the quality of life and the stable democracy that we can offer.
2. We have one of the best K-12 and postsecondary education systems in the world. They produce a highly skilled and educated workforce ready to meet the challenges of the 21st century.
3. We have boundless renewable resources in the form of clean energy, wood, water and agricultural land. And we have an economic plan embodied in CleanBC that recognizes these strategic strengths at its very core.

Capitalizing on British Columbia's strategic advantages

1. Use our strategic advantage as a destination of choice to attract industry to BC in highly mobile sectors that have difficulty retaining employees in a competitive marketplace.
2. Use our boundless renewable energy resources to attract industry, including the manufacturing sector, that wants to brand itself as sustainable over its entire business cycle.
3. Set up seed funding mechanisms (i.e. InBC) to allow the BC-based creative economy sector to leverage venture capital from other jurisdictions to BC. Too often only leveraging done is the shutting down of BC-based offices and opening of offices in Silicon Valley.
4. COVID-19 pandemic has introduced uncertainty into all echelons of daily life. But uncertainty need not inspire fear. Uncertainty is the pretext to innovation and innovation is the pretext to change.

Capitalizing on British Columbia's strategic advantages

Today we are offered two choices:

- 1) To fear uncertainty and to fear change
- 2) To see this generational challenge as a generational opportunity

My preference

Obviously 2)!

Example: Terrace, British Columbia

- 1) Prince Rupert is North America's closest deep port to Asia
- 2) Railway connects Prince Rupert to Chicago, the gateway to the eastern US
- 3) Terrace could capitalize on its strategic location on the rail line and near sources of clean energy to attract "clean manufacturing"

Example: Prince George

- 1) Biggest expense for data distribution centres is cost of cooling these data centres
- 2) Prince George, due to its northern location, has a natural strategic advantage as its mean climate is cooler than many existing centres
- 3) Ensure public broadband redundancy to Prince George

Example: Langford

- 1) A fast moving council that knows how to:
- 2) “Since incorporation in 1992, the City of Langford has operated the City more like a business than a typical government. Everything that Council does and, by extension, everything in the way that staff are directed, is based on finding solutions rather than putting up barriers”
- 3) A community that knows how to pivot on a dime to capitalize on opportunities as they present themselves



Innovation, climate action, resource extraction & economic reconciliation

- 1) Climate action and resource (e.g. energy, mines, forestry) development should be accomplished through the lens of economic reconciliation
- 2) Requires new paradigm. Staking and mining claim process, woodlot licensing & environmental approval process all need to be decolonized
- 3) Requires capacity and corporate/board governance building in some communities
- 4) Requires corporate Canada, BC Hydro and BC/Federal governments to take an innovative distinctions-based approach to reconciliation and resource development

Solutions, solutions, solutions

