

Our Climate Crisis

And what to do about it!



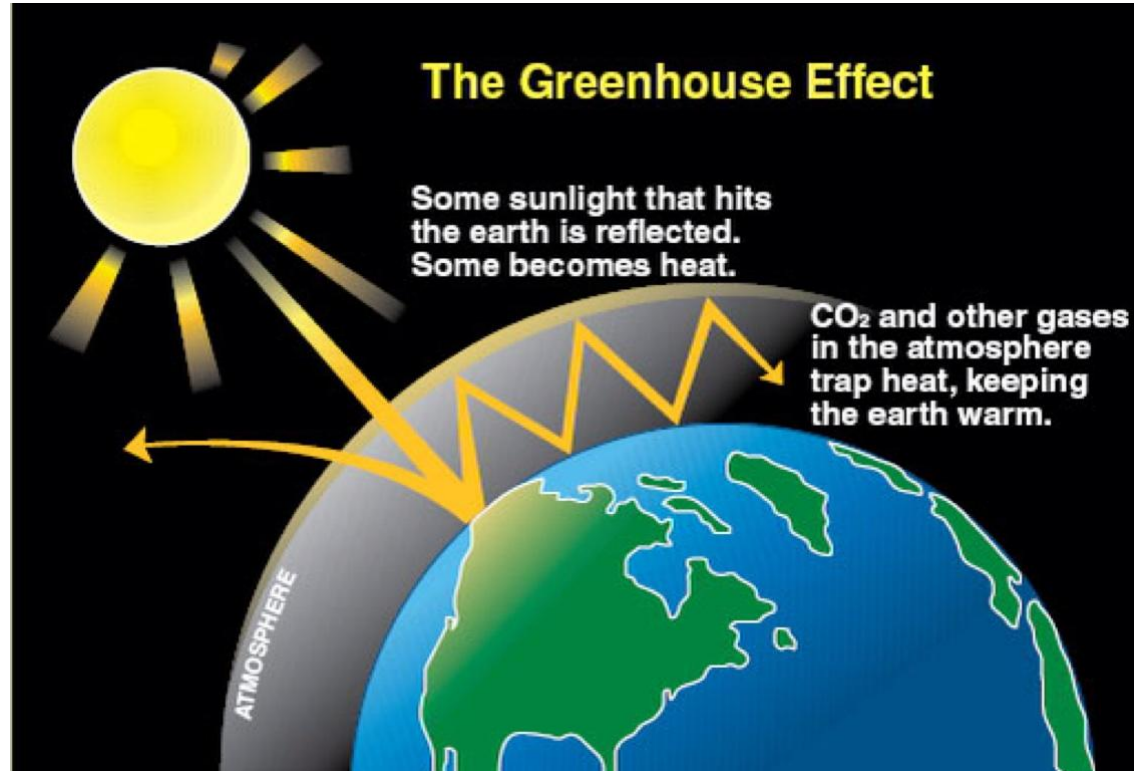
A Note on Emotions

The content of this presentation
will be upsetting. **So let's talk
about that for a minute.**

How does talking about climate
make you feel? **Anxious?** Guilty?
Overwhelmed? Numb?

Climate Emergency Fundamentals

- Greenhouse Gases (GHGs)
 - CO₂, Methane, N₂O, etc.
- Greenhouse Effect
- GHGs are produced naturally, but also by human activities
- Key Concepts
 - CO₂ Parts Per Million (PPM)
 - CO₂ emitted per year
 - Carbon Budget



HOW GREENHOUSE GASES WARM OUR PLANET

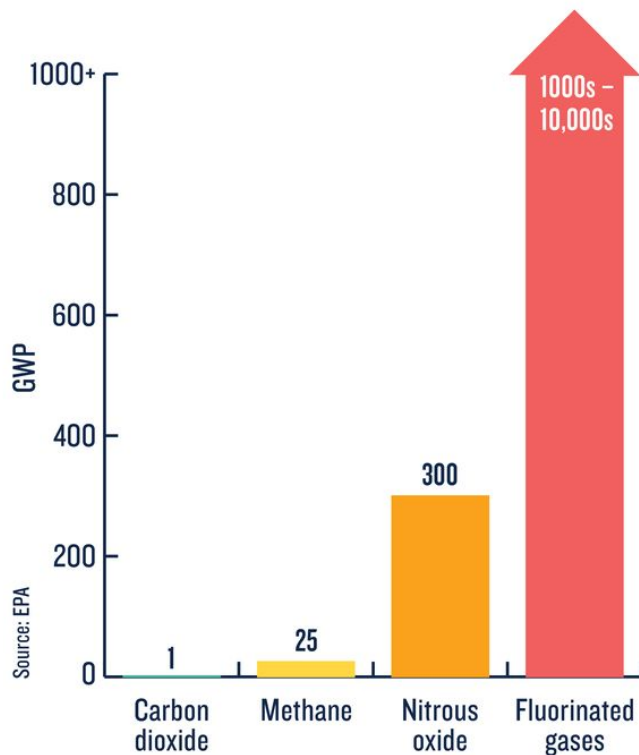
Carbon Dioxide:

burning fossil fuels,
forest fires

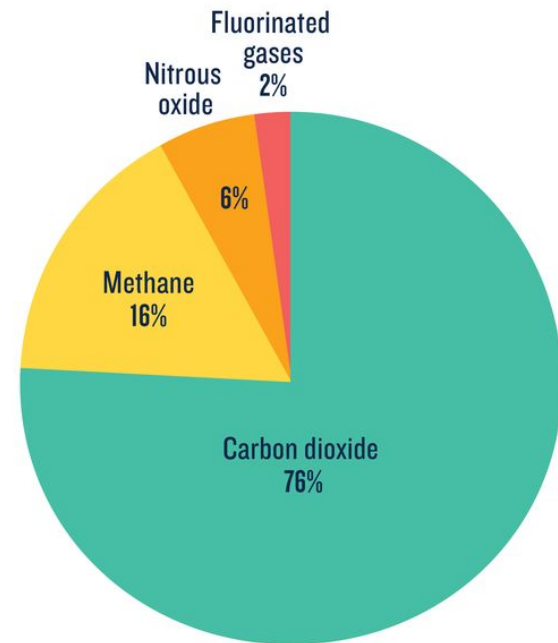
Methane: natural
gas, organic matter
decay (e.g. cow burps)

Nitrous Oxide:
fertilizer reacting

Fluorinated gas: in
air conditioners



The global warming potential (GWP) of human-generated greenhouse gases is a measure of how much heat each gas traps in the atmosphere, relative to carbon dioxide.

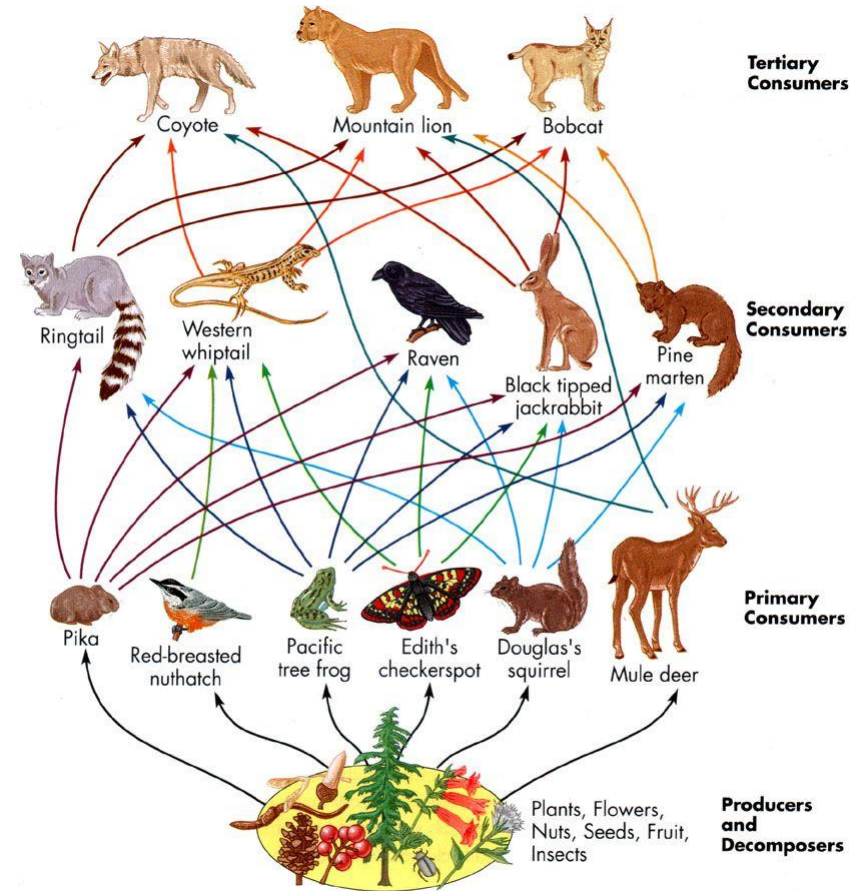


How much each human-caused greenhouse gas contributes to total emissions around the globe.

The Broader Ecological Emergency

Underpins Human Survival in the Earth System

- 6th Mass Extinction, Human Caused [1]
- Extinction occurs at a “background” rate of 1–5 species/year. Scientists estimate we now lose species at up to 1,000 times the background rate. **Dozens go extinct every day.**

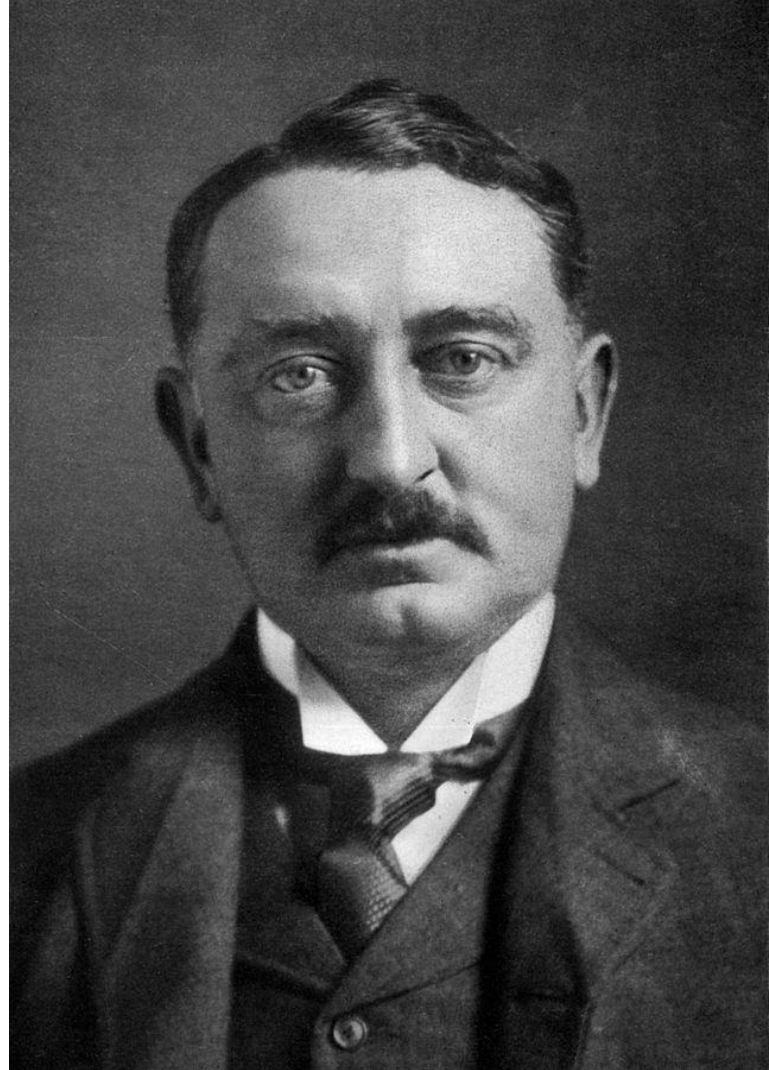


Extractivism

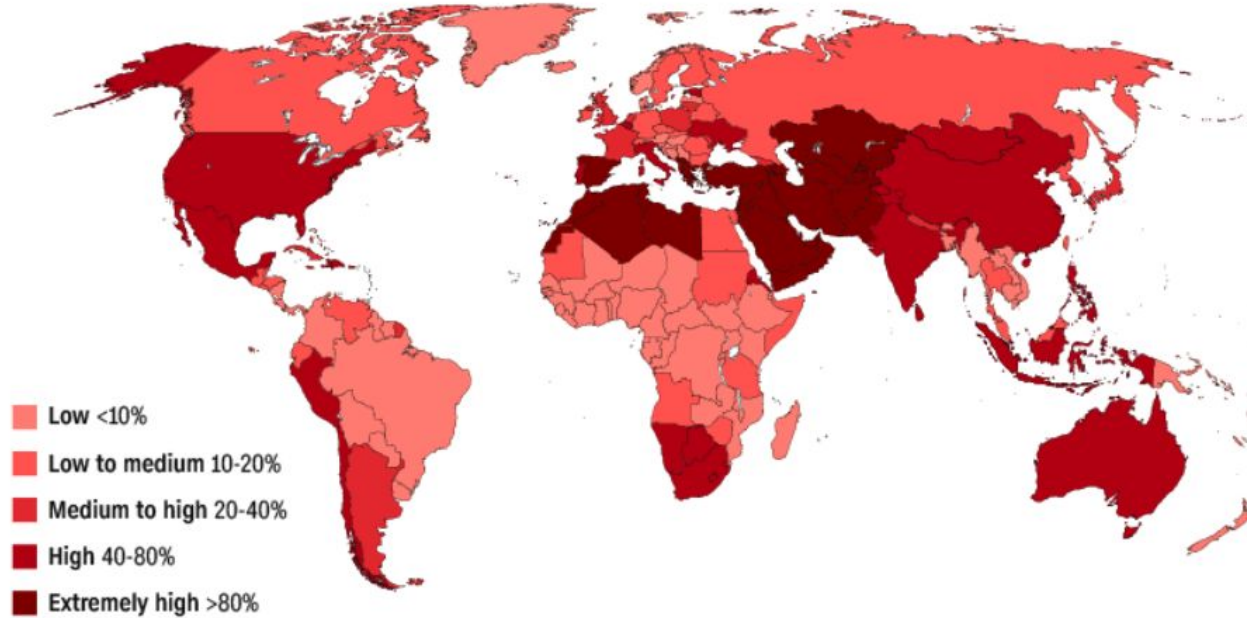
Seeing the world as a heap of resources to be gathered and processed as fast as possible, rather than as a system to be tended, revered or nurtured. **This idea connects colonialism and our present ecological crisis.**

Further Reading: *This Changes Everything*.
Naomi Klein

Cecil Rhodes (19th Century British Official): "We must find new lands from which we can easily obtain raw materials and at the same time exploit the cheap slave labour that is available from the natives of the colonies. The colonies would also provide a dumping ground for the surplus goods produced in our factories."



Countries that will be water scarce by 2040



Source: World Resources Institute
Graphic: Gabrielle Smith, CNN

- Cape Town almost hit day zero in 2018
- Chennai, India; Harare, Zimbabwe ran out of water 2019
- 21 additional cities in India expected to run out of water in 2020, 40% of pop by 2030
 - 100-500M won't have regular access to water [1]
- 30% of glaciers in Himalaya's have melted with no replacement snow [2]

[1] <https://www.aljazeera.com/news/2019/06/india-running-water-fast-190620085139572.html>

[2] <https://www.nationalgeographic.com/environment/2019/06/himalayan-glaciers-melting-alarming-rate-spy-satellites-show/>

[3] <https://www.cnn.com/2019/06/27/india/india-water-crisis-intl-hnk/index.html>

"for every degree of global warming, the world's yield of wheat will fall six per cent, corn by 7.4 per cent, and rice and soybeans both by a little more than three per cent each. Together those four crops account for two-thirds of the calories consumed by people."

"food crises could develop on several continents at once, said Cynthia Rosenzweig, a senior research scientist at the NASA Goddard Institute for Space Studies and one of the lead authors of the report. **"The potential risk of multi-breadbasket failure is increasing,"**

<https://www.nytimes.com/2019/08/08/climate/climate-change-food-supply.html>

Food System Collapse

The New York Times

Climate Change Threatens the World's Food Supply, United Nations Warns



Do you believe this? **Say it out loud.**

“If we don’t slow climate change significantly, we could see food system collapse within our lifetime.”

“There may not be enough food in the grocery store.”

“Millions of people will starve.”

Foods Threatened by

CLIMATE BREAKDOWN



TURN ANXIETY INTO ACTION
WE GOT THIS



Foods Threatened:

Apples, Beer, Chocolate, Coffee, Lobster, Maple Syrup, Oysters, Peaches, Scallops, Strawberries...

Causes:

Irregular freeze/thaw, ocean acidification, warming, drought.

Further Reading:

(<https://www.saveur.com/climate-change-ingredients/>)

Real Estate

Global Real Estate is worth
3X global stock markets!

**How much of it will soon
be worthless?**

And how will cities pay for
flood walls if their tax base
is declining?

Further reading:

<https://www.foxbusiness.com/money/insurers-drop-fire-coverage-for-350000-california-residents>

<https://www.ucsusa.org/resources/underwater>

<https://www.cbsnews.com/news/moodys-buys-climate-data-firm-four-twenty-seven-wall-streetto-help-investors-price-impact-of-warming-planet/>



Money Markets Lifestyle Real Estate Tech Sports TV Podcasts More :

INSURANCE · Published 21 days ago

Insurers drop fire coverage for 350,000 California residents

By Kyle Beck | FOXBusiness



Markets

Quote Lookup

DOW JONES A

28,004.8

▲ 222.93 (+0.8%)

NASDAQ COM

8,540.85

Intergovernmental Panel on Climate Change (IPCC)

Remarkable Feat of Human Collaboration

- > 10,000 scientists
- Multiple years of effort
 1. Review theories, models and evidence
 2. Run multiple, independent simulations
 3. Aggregate + analyze results
 4. Publish reports

[1] <https://www.ipcc.ch/assessment-report/ar5/>

[2] https://www.ipcc.ch/site/assets/uploads/2018/11/AR6_WGII_outlines_P46.pdf

IPCC SR15

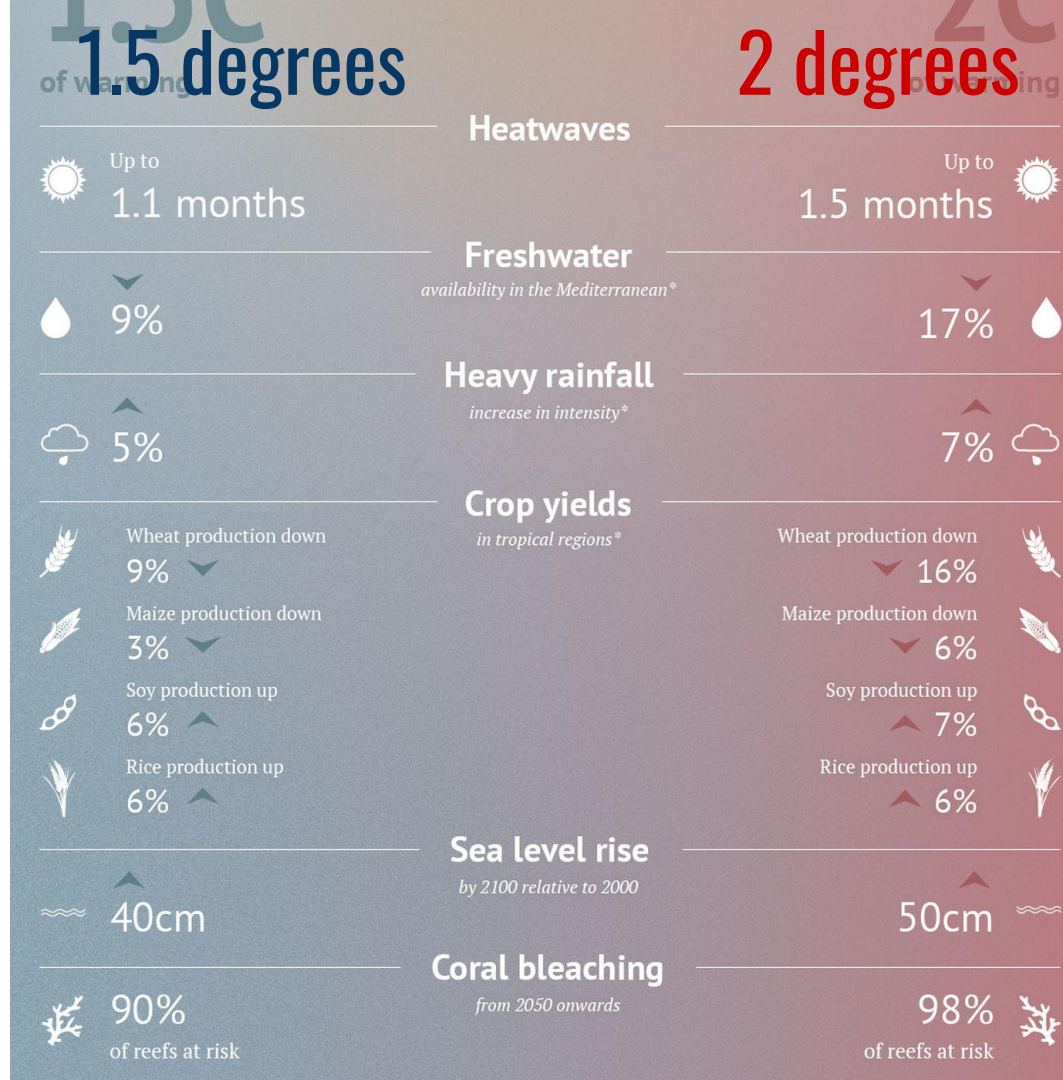
1.5 vs 2

The UN IPCC aimed to keep warming 'well under 2 degrees', but how much under?

The SR15 report found major differences between **1.5 degree of warming, which is bad and 2 degrees, which is way worse.**

The really bad news is that we are currently on pace for about 3.5 degrees of warming.

Image source: Carbon Brief



The IPCC SR15 Report: 11 Years Left?

The “**we have 12 years to solve climate change**” meme comes from the United Nations Intergovernmental Panel on Climate Change. In the SR15 report (October 2018), scientists were asked to model the difference between 1.5° and 2° of warming.

The 12-year estimate is based on the report’s finding that **we must halve emissions in 12 years** (and get to net-zero by 2040) if we want to keep warming at 1.5°. But cutting emissions that fast will require radical changes to our infrastructure, transportation and agricultural systems **so we must start planning and building TODAY.**

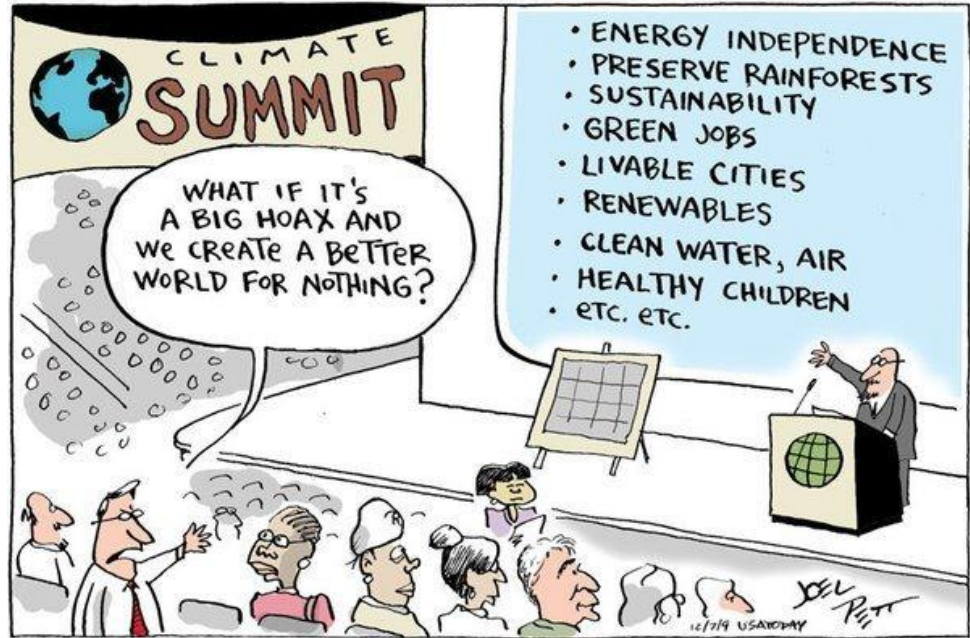
Christopher Joyce, one of the authors of the report, suggests that “**limiting warming to 1.5 degrees is possible within the laws of chemistry and physics. But doing so would require unprecedented changes**” throughout society.

“Unprecedented Changes” Throughout Society

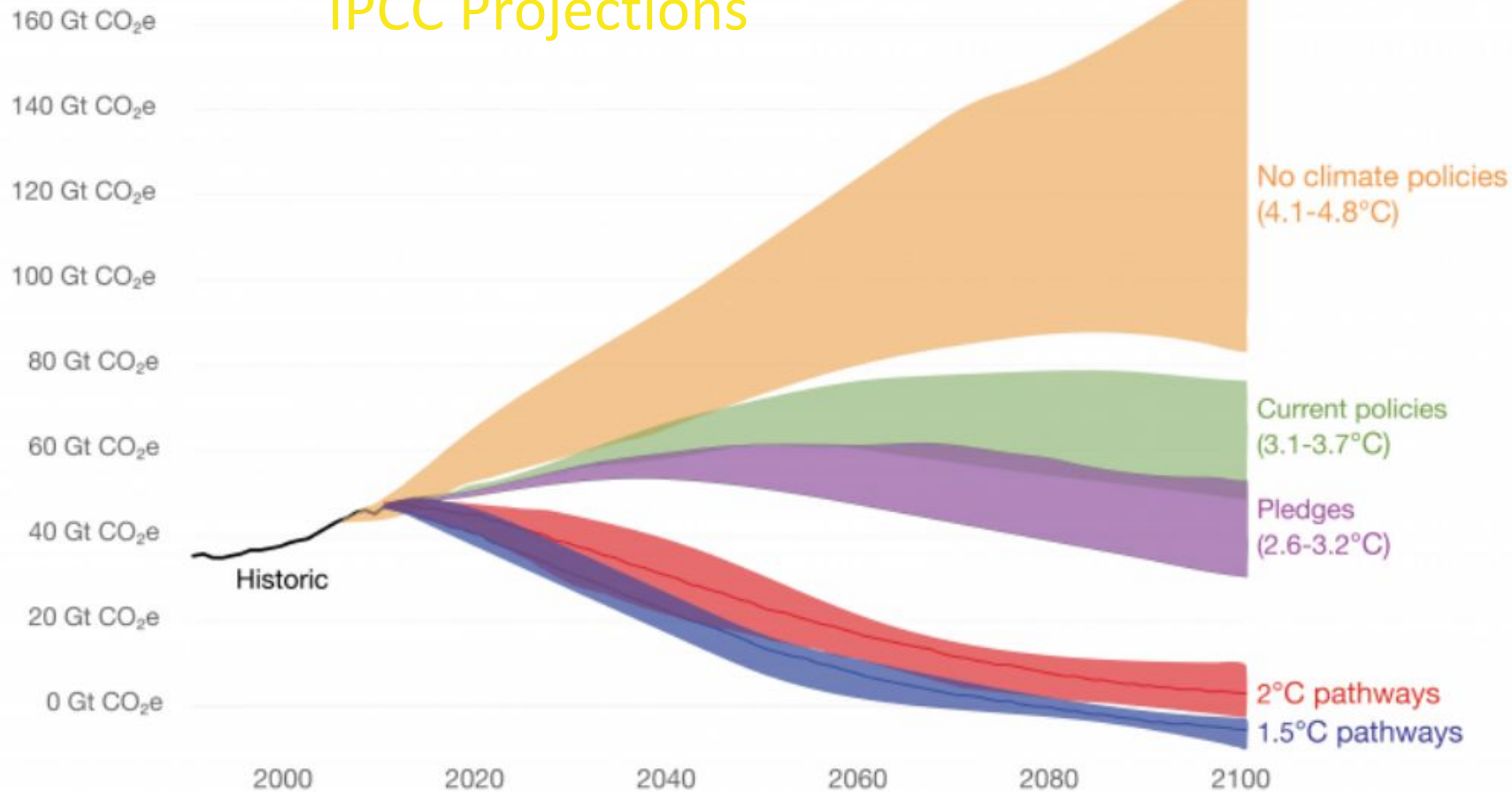
What we eat. Where we live.
How we move. How we work.
How we shop. How we entertain
ourselves.

There is no magic bullet.

It's not plant-based food or
electric cars or carbon capture or
geothermal heating — it's all of
them. **Everything must change.**



IPCC Projections



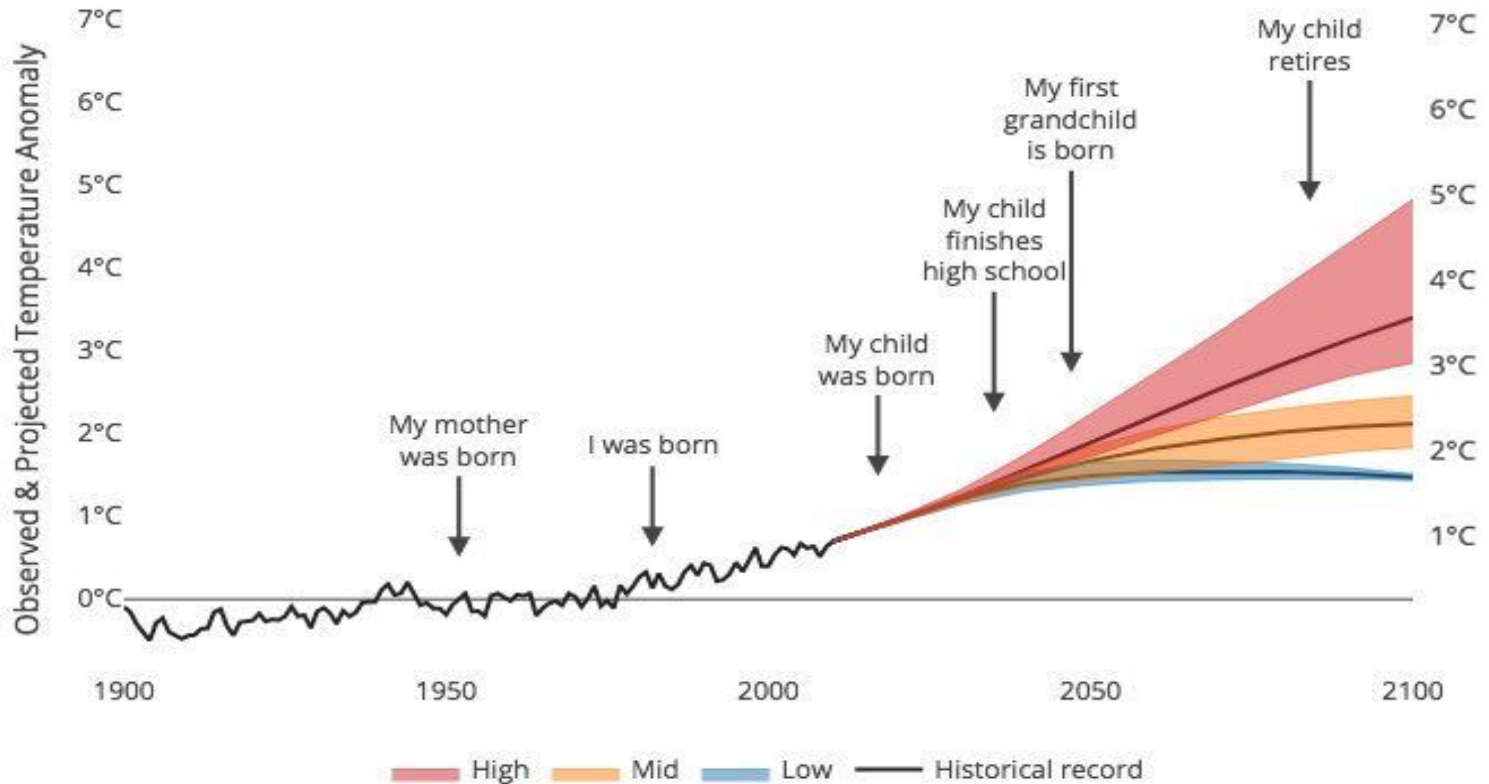
Based on data from the Climate Action Tracker (CAT).

The data visualization is available at [OurWorldinData.org](https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions#future-emission-scenarios). There you find research and more visualizations on this topic.

<https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions#future-emission-scenarios>

Licensed under CC-BY-SA by the authors Hannah Ritchie and Max Roser.

Life altering change is going to happen during the lifetime of today's children and youth; the degree of change depends on actions taken.



Probability vs Risk

**Our Current Plans
have VERY HIGH
risk tolerance.**

- Aiming for 50% chance of staying under 1.5C [2]
- 68% chance below 2.6-4C [2]
- Airplanes, 1 in 5.4 Million chance of crash = 0.0000185% [3]

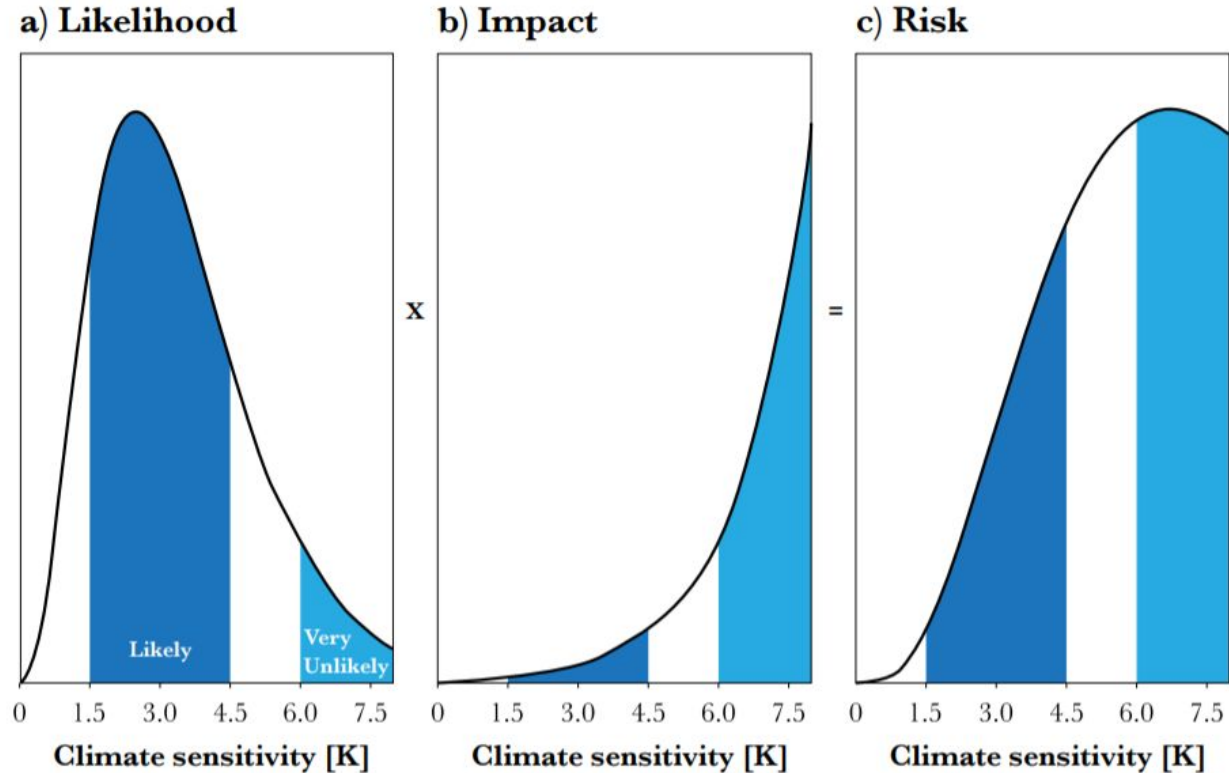


Figure 2: Schema of climate-related risk. (a) Event likelihood and (b) Impacts produce (c) Risk. Lower likelihood events at the high end of the probability distribution have the highest risk (Credit: RT Sutton/E Hawkins).

[1] <https://www.ipcc.ch/assessment-report/ar5/>

[2] <https://climateactiontracker.org/global/temperatures/>

[3] <http://www.economist.com/blogs/gulliver/2015/01/air-safety>

<https://climateextremes.org.au/wp-content/uploads/2018/08/What-Lies-Beneath-V3-LR-Blank5b15d.pdf>

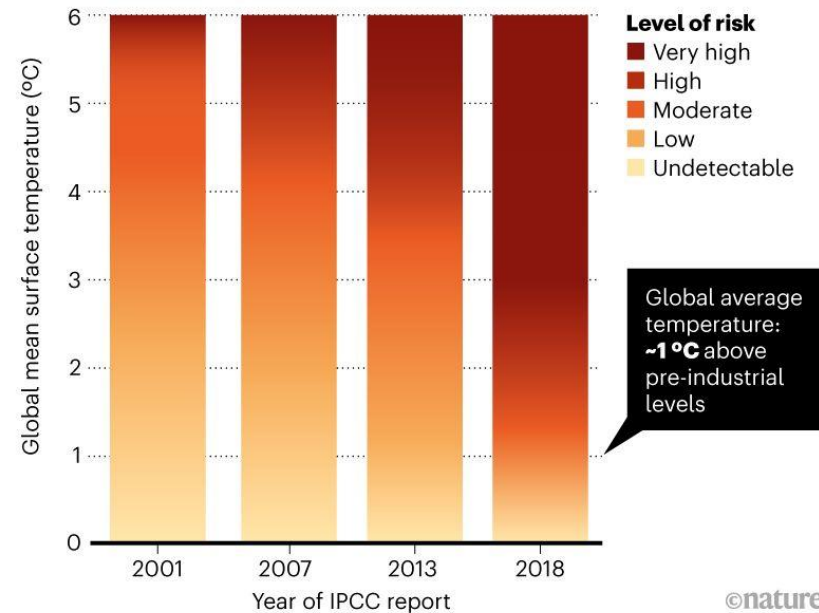
New Evidence on Irreversible Tipping Points - Nature

“The IPCC introduced the idea of tipping points two decades ago. At that time, these ‘large-scale discontinuities’ in the climate system were considered likely only if global warming exceeded 5°C.... Information summarized in the two most recent IPCC Special Reports suggests that tipping points could be exceeded even between 1 and 2°C of warming.”

- Ice Collapse
- Biosphere Boundaries
- Global Cascade

TOO CLOSE FOR COMFORT

Abrupt and irreversible changes in the climate system have become a higher risk at lower global average temperatures.



<https://www.nature.com/articles/d41586-019-03595-0>

“If damaging tipping cascades can occur and a global tipping point cannot be ruled out, then this is an existential threat to civilization. No amount of economic cost–benefit analysis is going to help us.”

–Timothy M. Lenton, Johan Rockström, Owen Gaffney, Stefan Rahmstorf, Katherine Richardson, Will Steffen & Hans Joachim Schellnhuber in Nature

CO₂ Emissions Reached an All-Time High in 2018

The uptick follows several years of relatively flat emissions, underscoring the urgency of climate action

By Chelsea Harvey, E&E News on December 6, 2018

We are Completely Failing to ACT!

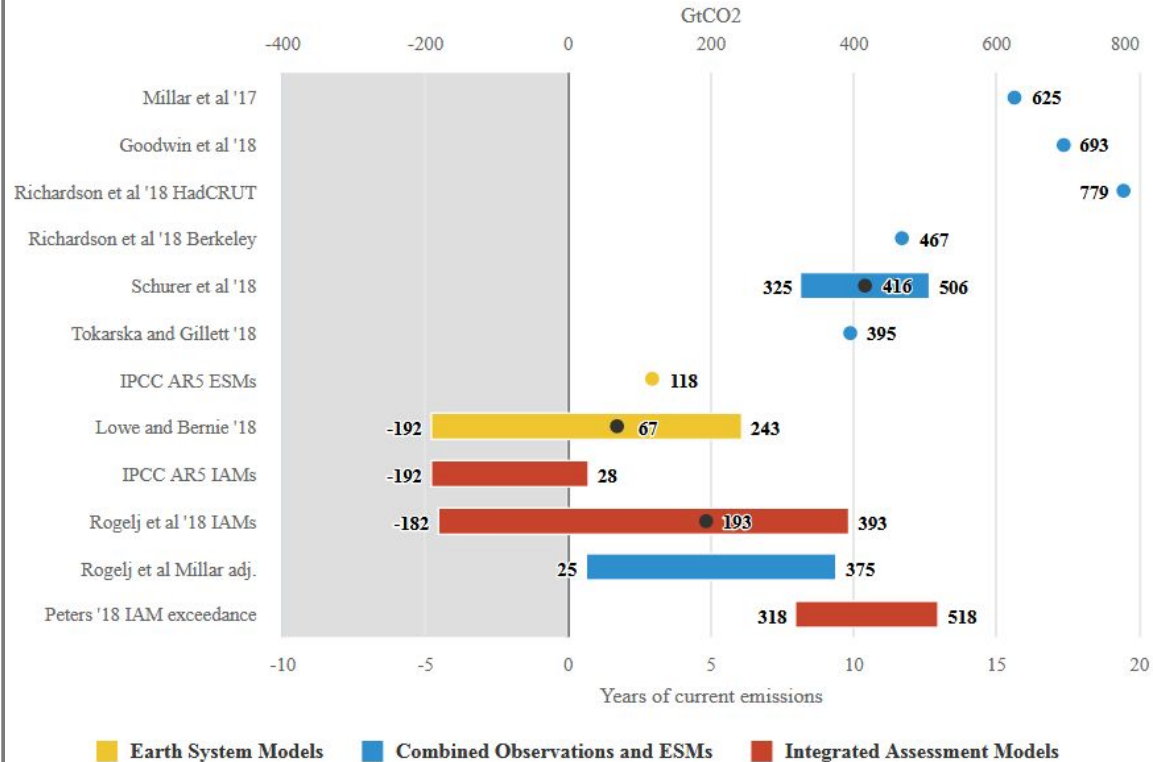
LATEST NEWS



The C
Alzhe

Carbon Budget (1.5C)

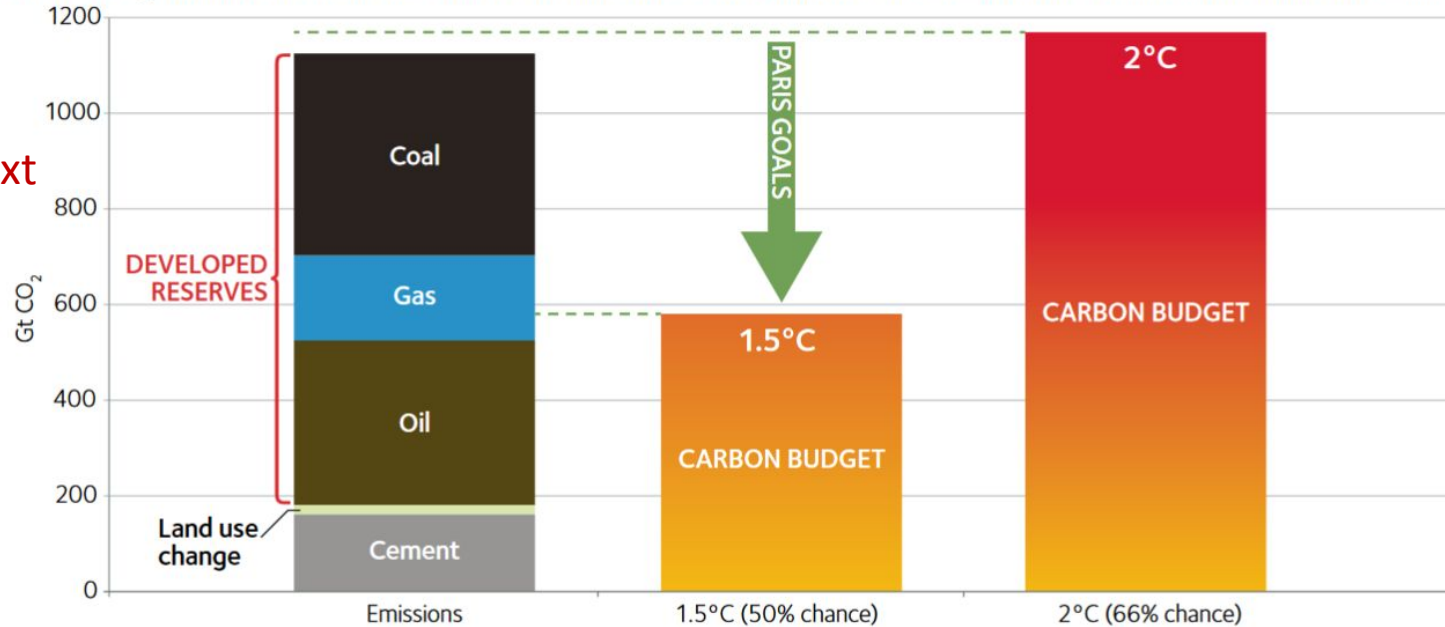
Remaining carbon budget for a 66% chance of less than 1.5C warming



Business Actions vs Carbon Budget

Spending **\$5T** over next 10 years to develop **NEW reserves!**

Figure 1: CO₂ Emissions from Global Developed Fossil Fuel Reserves, Compared to Carbon Budgets within Range of the Paris Goals



Source: Rystad Energy, IEA, World Energy Council, IPCC, OCI analysis²³

<https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf?1499691240>
<https://www.fastcompany.com/90290795/focusing-on-how-individuals-can-stop-climate-change-is-very-convenient-for-corporations>
<https://www.independent.co.uk/news/business/news/bp-shell-oil-global-warming-5-degree-paris-climate-agreement-fossil-fuels-temperature-rise-a8022511.html>
<https://www.theguardian.com/commentisfree/2019/jun/26/shell-not-green-saviour-death-machine-greenwash-oil-gas>
<https://www.globalwitness.org/en/blog/big-oil-set-to-spend-5-trillion/>

CLIMATE CHANGE

A TIMELINE

©SEMI-RAD

"CLIMATE
CHANGE
ISN'T REAL"

OOPS



OK, CLIMATE CHANGE
IS REAL, WE'RE JUST
NOT CONVINCED IT'S
CAUSED BY HUMANS

FUCK

How is Canada Doing?



CANADA

Summary of pledges and targets



PARIS AGREEMENT

Ratified

2030 unconditional target(s)

30% below 2005 by 2030

[7-14% below 1990 by 2030 excl. LULUCF]
[20-25% below 2010 by 2030 excl. LULUCF]

Coverage

Economy wide, incl. LULUCF

LULUCF

Will use LULUCF accounting based on the reference level approach to meet its target

COPENHAGEN ACCORD

2020 target(s)

17% below 2005 by 2020

[4-7% above 1990 by 2020 excl. LULUCF]
[7-10% below 2010 by 2020 excl. LULUCF]

Condition(s)

None

KYOTO PROTOCOL (KP)

Member of KP CP1 (2008–2012)

Withdrawn

Member of KP CP2 (2013–2020)

No

KP CP1 target (below base year)

6% below 1990

KP CP2 target (below base year)

None

LONG-TERM GOAL(S)

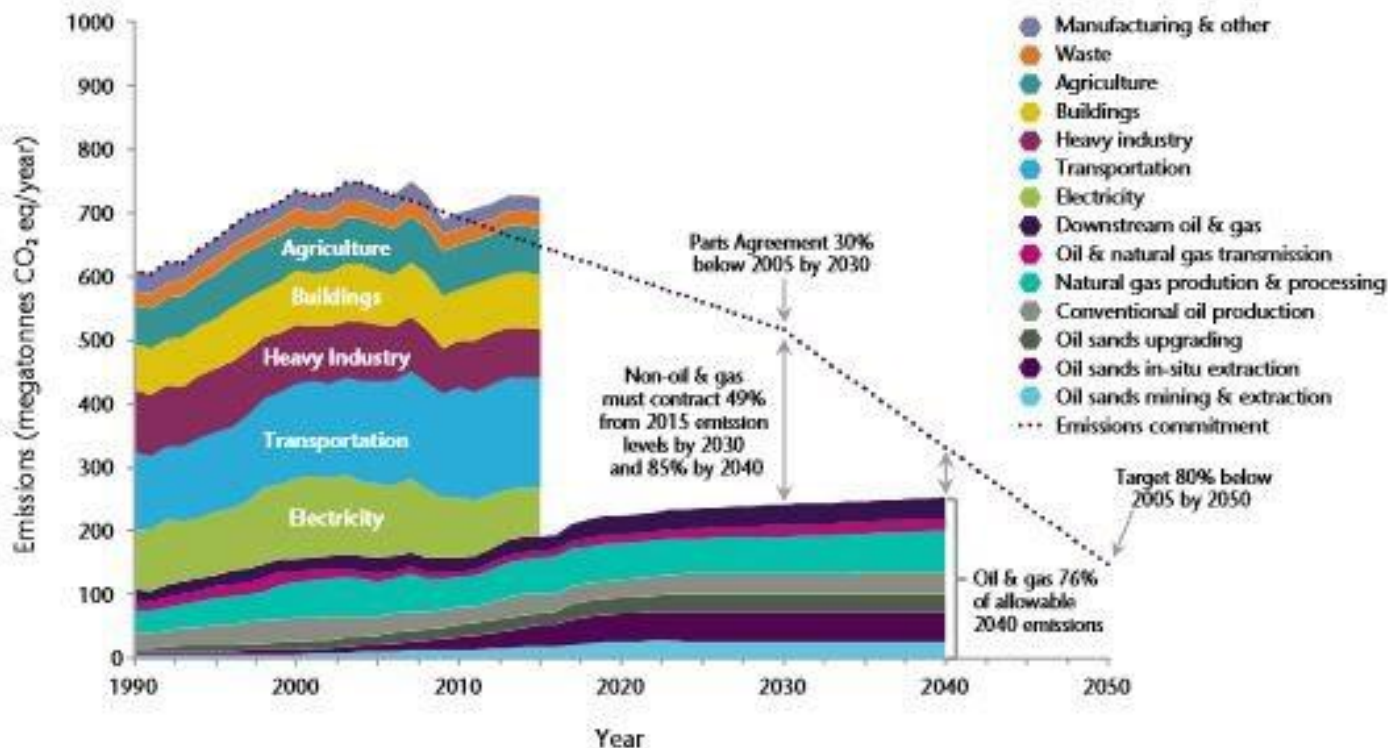
Long-term goal(s)

80% net emission reductions below 2005 levels by 2050

Should be 60-100%

Should be 100%

Figure ES10: Canadian emissions by sector from 1990 to 2015 and oil and gas emissions under the NEB's reference scenario production forecast*

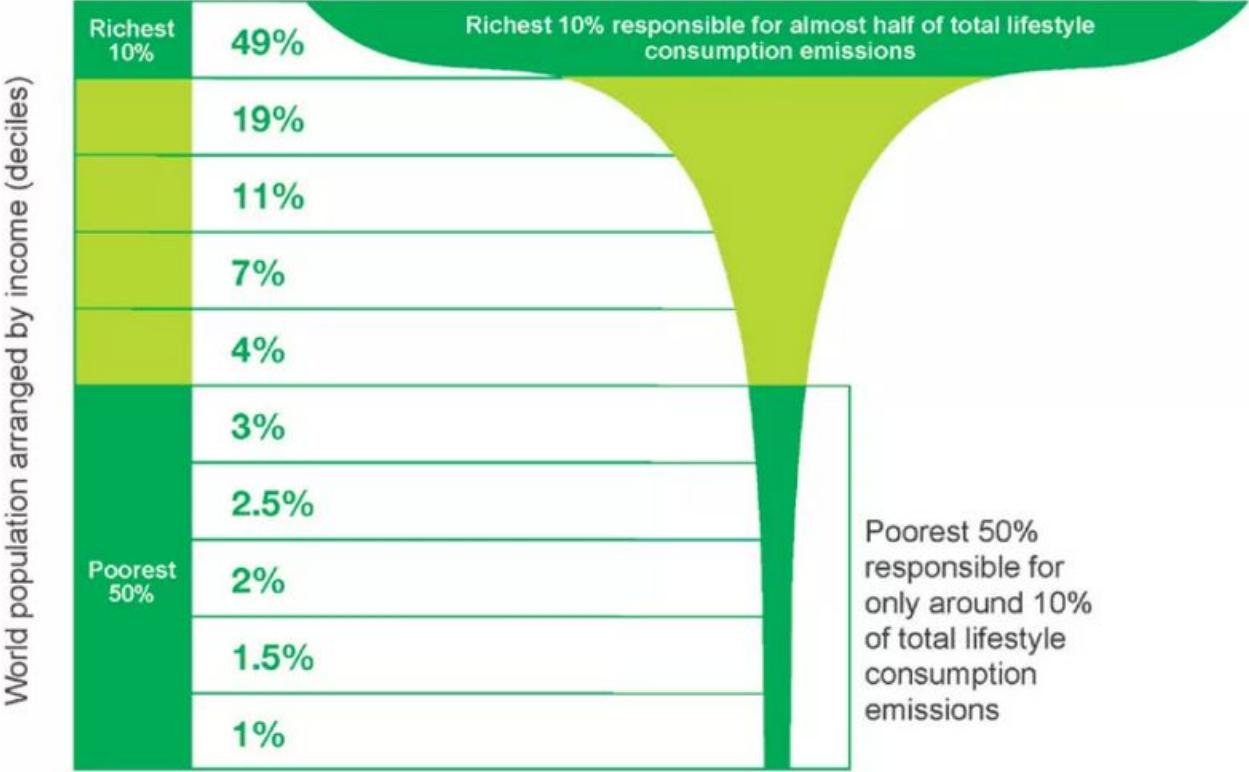


Source: ECCC National Inventory Report 2017; NEB Energy Future 2017; Government climate commitments.
 *Including the Alberta 100-megatonne oil sands emissions cap. Canada's emissions-reduction targets in 2030 and 2050 are also shown.

Figure 1: Global income deciles and associated lifestyle consumption emissions



Percentage of CO₂ emissions by world population



Solutions

The future ALREADY EXISTS

Solutions by Rank

PROJECT DRAWDOWN

Rank	Solution	Sector	TOTAL ATMOSPHERIC CO ₂ -EQ REDUCTION (GT)	NET COST (BILLIONS US \$)	SAVINGS (BILLIONS US \$)
1	Refrigerant Management	Materials	89.74	N/A	\$-902.77
2	Wind Turbines (Onshore)	Electricity Generation	84.60	\$1,225.37	\$7,425.00
3	Reduced Food Waste	Food	70.53	N/A	N/A
4	Plant-Rich Diet	Food	66.11	N/A	N/A
5	Tropical Forests	Land Use	61.23	N/A	N/A
6	Educating Girls	Women and Girls	51.48	N/A	N/A
7	Family Planning	Women and Girls	51.48	N/A	N/A
8	Solar Farms	Electricity Generation	36.90	\$-80.60	\$5,023.84
9	Silvopasture	Food	31.19	\$41.59	\$699.37
10	Rooftop Solar	Electricity Generation	24.60	\$453.14	\$3,457.63

Buildings

Wood instead of Concrete



Further reading:

<https://www.theguardian.com/cities/2019/feb/25/concrete-the-most-destructive-material-on-earth>

Passive House

Passive House is an architectural standard that uses superior insulation and design to make Homes that don't need energy For heating and cooling.

This is a Passive House in CALGARY!



GAS vs. ELECTRICITY

Emissions from a 1900 sq. ft home:

Natural gas: **4.437** tCO₂e/y

Baseboards: **0.425** tCO₂e/y

Heat Pump (ASHP): **0.170** tCO₂e/y

Stats are for Ontario which has a fairly clean grid

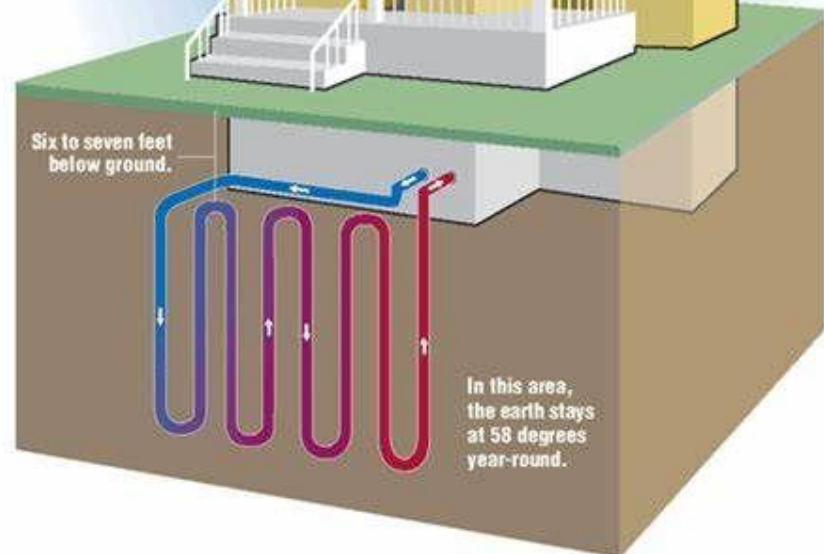
MORE READING:

<https://www.tvo.org/article/is-reducing-natural-gas-the-key-to-hitting-ontarios-climate-targets>

<https://www.nytimes.com/2019/05/01/opinion/climate-change-gas-electricity.html>

Geothermal heating

Liquid runs through pipes sunk into the earth and draws warmth from the constant temperature there. The heat is piped into an indoor unit and circulated through the house. During warmer months, the same system helps to cool the house.



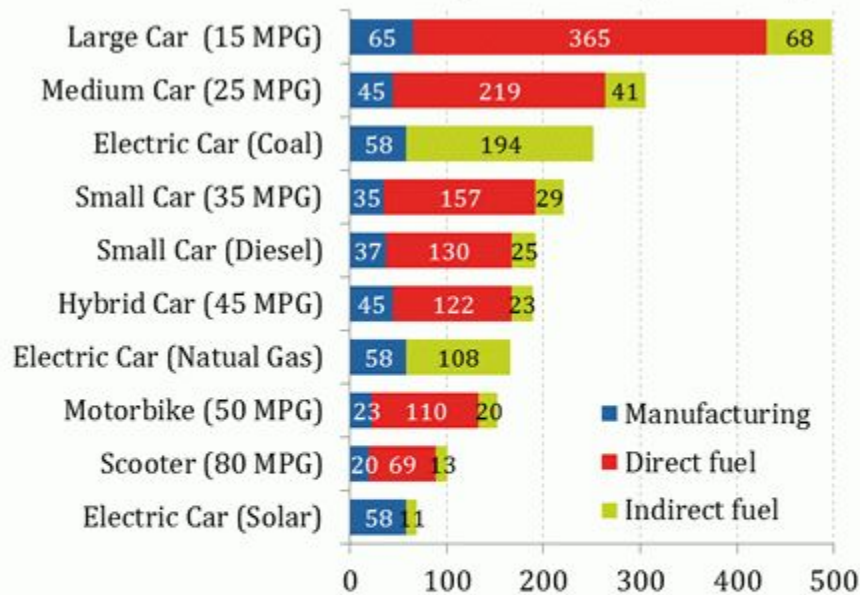
Transportation

There are huge variations between cars — even without considering EVs.

A recent study found increased reliance on SUVs was the second largest source of emissions increases!

(<https://www.theguardian.com/environment/ng-inter-active/2019/oct/25/suvs-second-biggest-cause-of-emissions-rise-figures-reveal>)

Emissions from Driving Alone: g CO₂e/km



Note: All figures are grams of carbon dioxide equivalents per kilometre (g CO₂e/km). Figures include direct emissions from fuel combustion, indirect emissions from fuel production and vehicle manufacturing emissions. Miles per gallon (MPG) is on road efficiency in US gallons. No radiative forcing multiplier is used for air travel. The electric car is assumed to achieve 200 Wh/km. Electricity for the electric car is modelled for solar and natural gas electricity generation.

Sources: DEFRA, EIA, EPA, GREET 1.8

Transportation



Bikes are enjoyable, quiet,
safe, good for your health and
they create no air pollution
and **ZERO emissions!**

Transportation

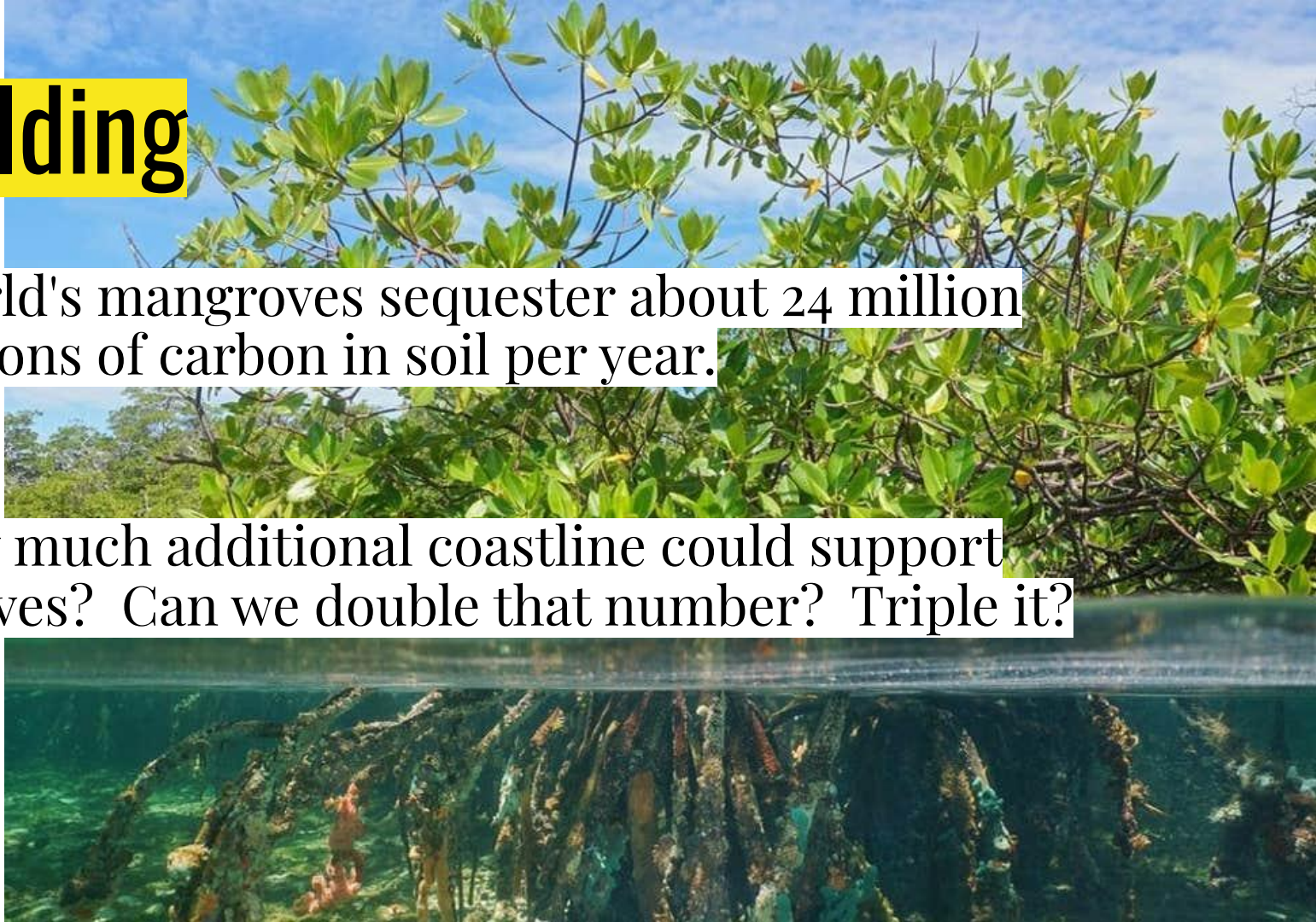
The background image shows a modern building with a glass facade. On the right side, there are external elevators with glass enclosures. One elevator is visible with a person inside. The building has a dark, metallic-looking frame and large glass panels that reflect the sky.

In his podcast/book, *50 Things that Made The Modern Economy*, Tim Harford describes the **elevator** as one of the most important environmental technologies — **and he's not wrong!**

Rewilding

The world's mangroves sequester about 24 million metric tons of carbon in soil per year.

But how much additional coastline could support mangroves? Can we double that number? Triple it?



Indigenous Land-Management

| ENVIRONMENT |

Indigenous peoples defend Earth's biodiversity—but they're in danger

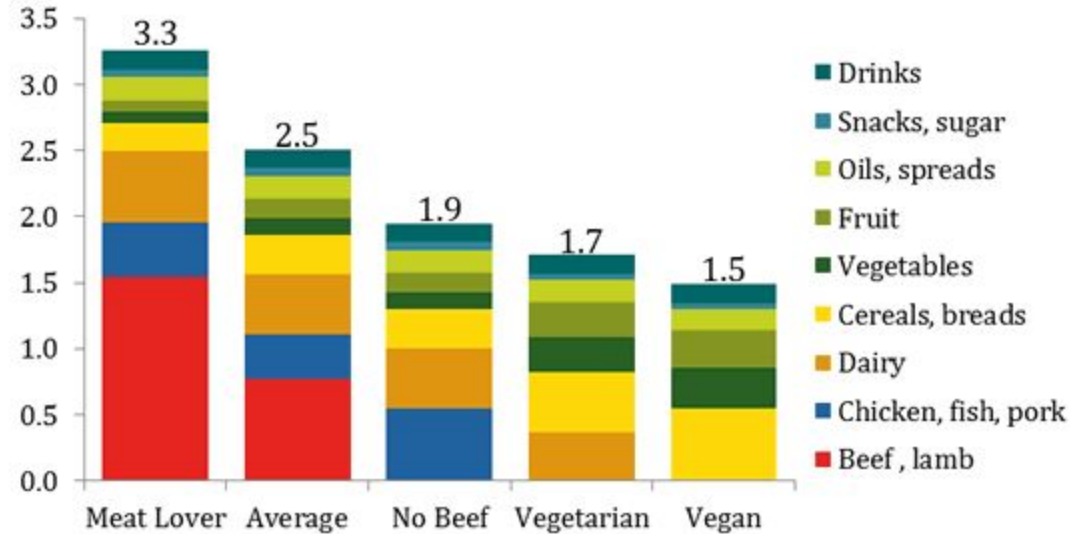
Comprising less than 5% of the world's population, indigenous people protect 80% of global biodiversity. Their role is under discussion by world leaders this week.

Food

Vegan is best, but look at the reduction just from removing **red meat**!

Yes, it's cow burps! (and land-use).

Foodprints by Diet Type: t CO₂e/person



Note: All estimates based on average food production emissions for the US. Footprints include emissions from supply chain losses, consumer waste and consumption.. Each of the four example diets is based on 2,600 kcal of food consumed per day, which in the US equates to around 3,900 kcal of supplied food.

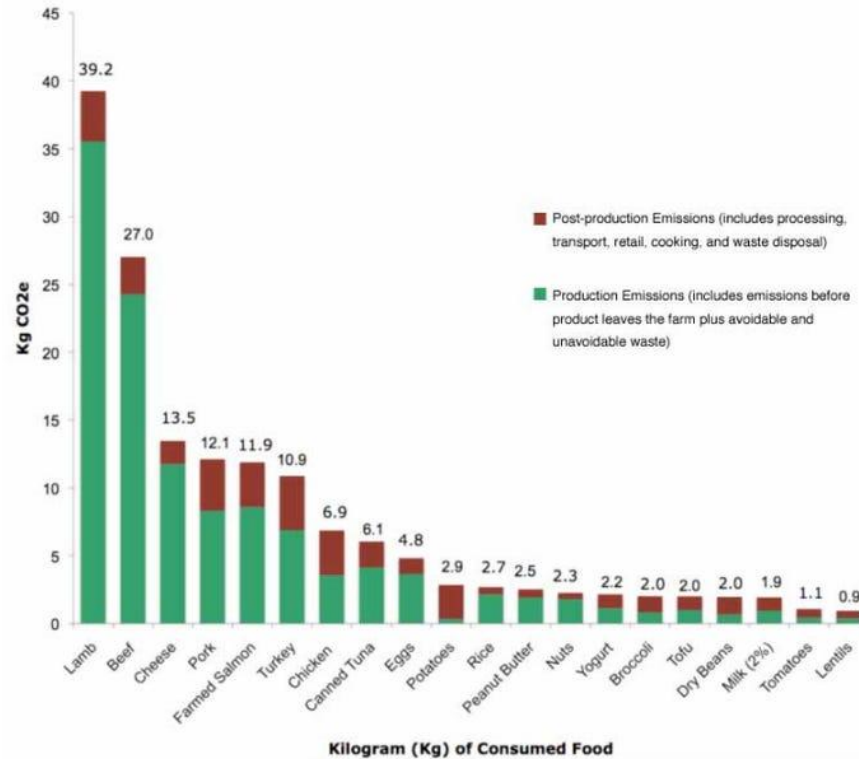
Sources: ERS/USDA, various LCA and EIO-LCA data

Figure 1. Full Lifecycle Assessment of Greenhouse Gas Emissions: Most Emissions from Common Proteins and Vegetables Occur During Production

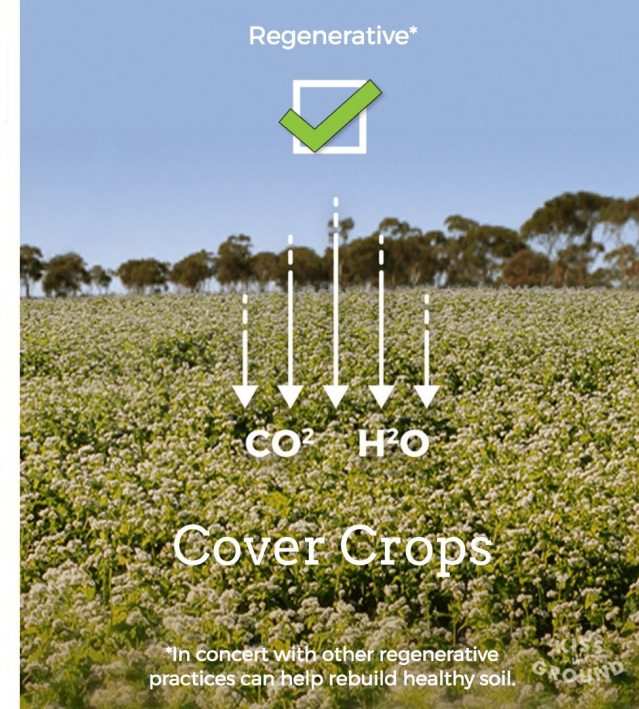
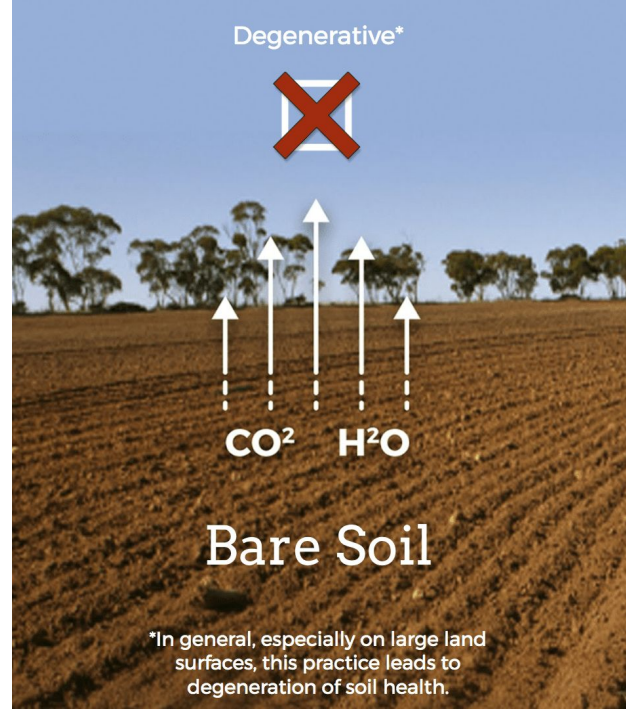
By Food Type

Source:

<https://www.businessinsider.com/the-top-10-foods-with-the-biggest-environmental-footprint-2015-9>



Regenerative Agriculture



4per1000 Project – If all agricultural land increased carbon drawdown by 4/1000 of current storage, could draw down 6-10 billion tons/year). (Commercial aviation was about 1 billion tons in 2018)

Read more: <https://regenerationinternational.org/>

Just Transition

A stylized illustration of a person wearing a yellow hard hat, with a background of falling yellow leaves and industrial elements like wind turbines and smokestacks.

No one left behind — including fossil fuel workers. But also means, justice for those most impacted and least responsible.

Climate Justice and injustice happen globally and within countries and even cities.

Even within Toronto, climate change will hit the young and the old, those living in basement apartments, outdoor workers and other equity seeking groups hardest.

Co-Benefits/Multi-Solving

CLIMATE SOLUTIONS HAVE BENEFITS BEYOND CARBON REDUCTION

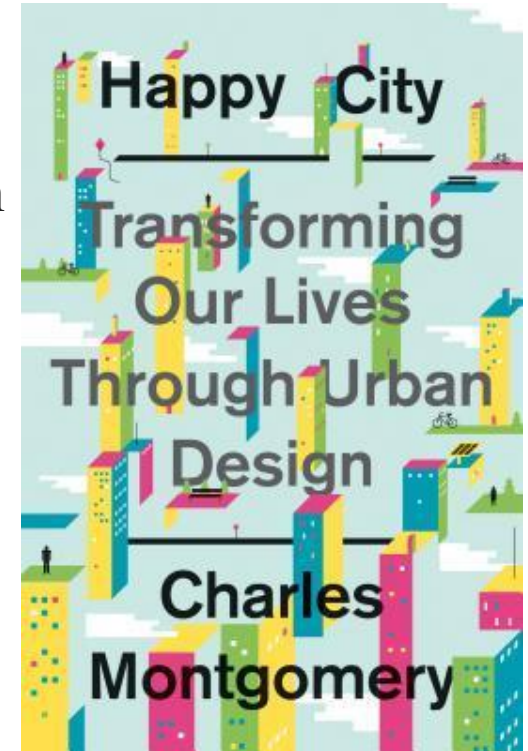
Reduced Emissions - Also reduces toxic air pollution which kills *millions*

Plant-based Eating- Health, Animal Rights, Worker Safety

Dense Urban Planning - Walkability makes people happy

Cycling - Physical and Mental Health Benefits

Rewilding - Research shows being out in nature is very good for mental health



The **7** Tenets of **Low-Carbon Luxury**



MINIMALISM

1. Work less, live more.
2. Buy less stuff, so you can afford to work less.
3. Breathe from your belly.
4. Be mindful of the beauty of daily life.
5. Pursue meaning directly.
6. Stop competing and start living by your own standards.
7. Be where you are.

Devaluing materialism and revaluing simply existing and low-carbon service work like teaching, art, counselling, personal care -- will be a key front in the battle to bring down emissions.

Which consumer goods are better than a sunset?

If this sort of mindfulness/minimalist approach fits your brand — check out our [low-carbon luxury series](#) on our website.

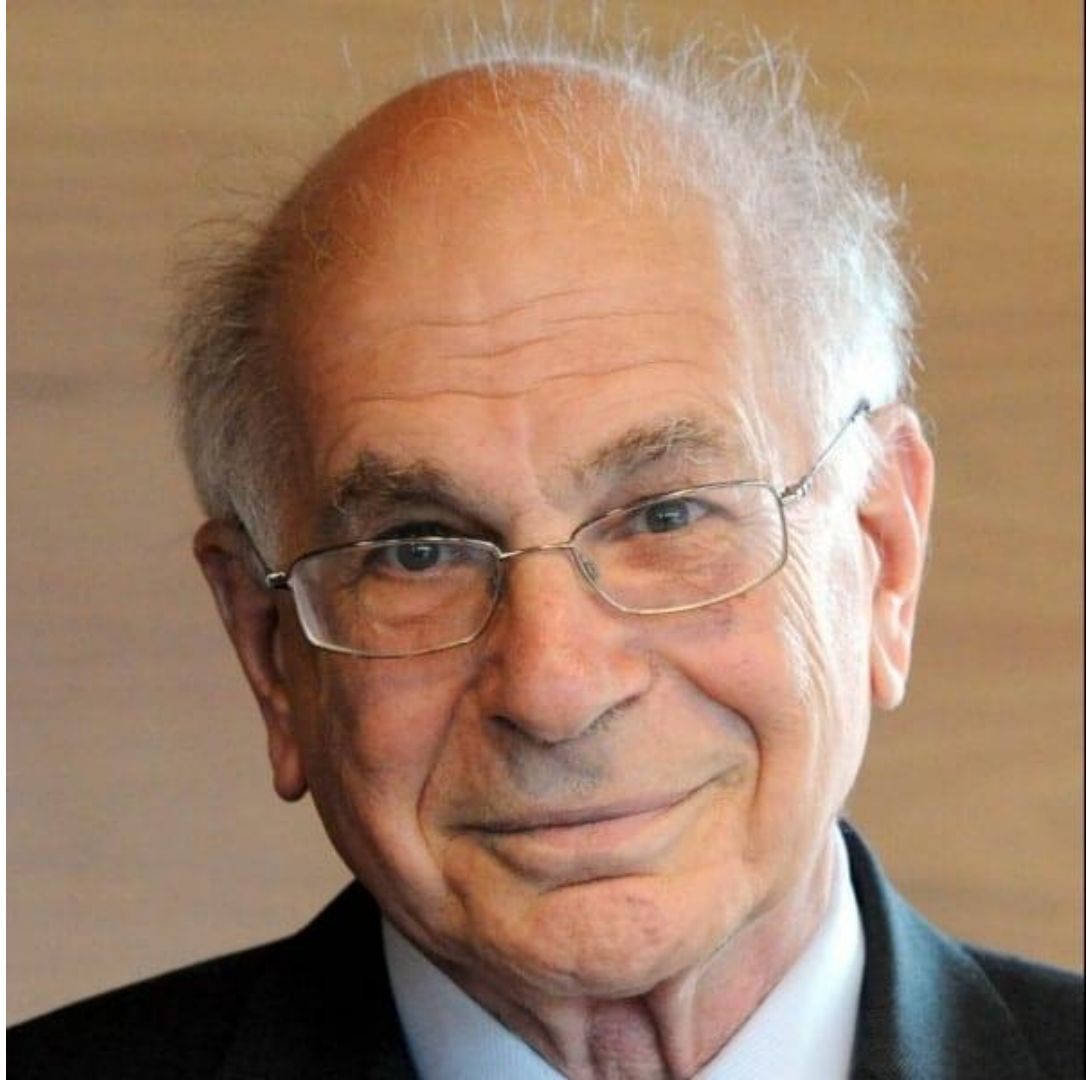


ACT NOW

**WE MUST TRANSFORM ALL
ASPECTS OF SOCIETY AND
THE GOVERNMENT IS
DRAGGING ITS FEET.**

Why don't we act?

“If you were to design a problem that our mind isn't equipped with, climate change would fit the bill. It's distant. It's contested. It's abstract.” -- *Nobel-Prize Winning Psychologist, Daniel Kahneman*



Behaviour is not Rational

WE KNOW WE MUST ACT, BUT DON'T. WHY?

- Both individual and collective behaviour are mainly determined by habits and 'materiality' rather than reason.
- 'Path-dependency' is a big challenge. We do what we did yesterday again and again.
- To overcome the 'abstraction' of a problem this fundamental: **you must create habits and material practices that remind you that this is real.**

PUT CLIMATE ACTION IN YOUR SCHEDULE! MAKE IT A HABIT!

Emotional Check-In

What emotions have you experienced during this presentation? What do you think close friends or relatives might feel if you shared this with them?

Shock and Re-evaluate

Research into slow food movement suggests that a **‘shock’ plus alternatives** is what leads people to change habits. Otherwise we stick with habitual behaviours.

(Miele, M. and Murdoch J. (2004). “A new aesthetic of food? Relational reflexivity in the 'alternative' food movement.” In Qualities of food. Harvey M., McMeekin A. and Warde A. (Eds.), . New York: Distributed exclusively in the USA by Palgrave.)

With climate change the shock won’t come until it is too late. So we must **CREATE a shock** to break path-dependency.

ONE FORM OF SHOCK IS TO **BREAK THE ‘POLITENESS’** THAT INHIBITS COMMERCIAL SPACES LIKE RESTAURANTS FROM GETTING POLITICAL.

Three Levels of Change

Personal Impact – Reducing your personal emissions is fast and guaranteed, but it's not enough.

Public Opinion – Talk Climate! Do a presentation like this for friends or coworkers. Most people know climate change is a problem now, but they have no idea how severe it is or that solutions exist.

Government Policy – This is the high-impact change we need, but it builds on numbers 1 and 2.

Personal Changes

Drive Less

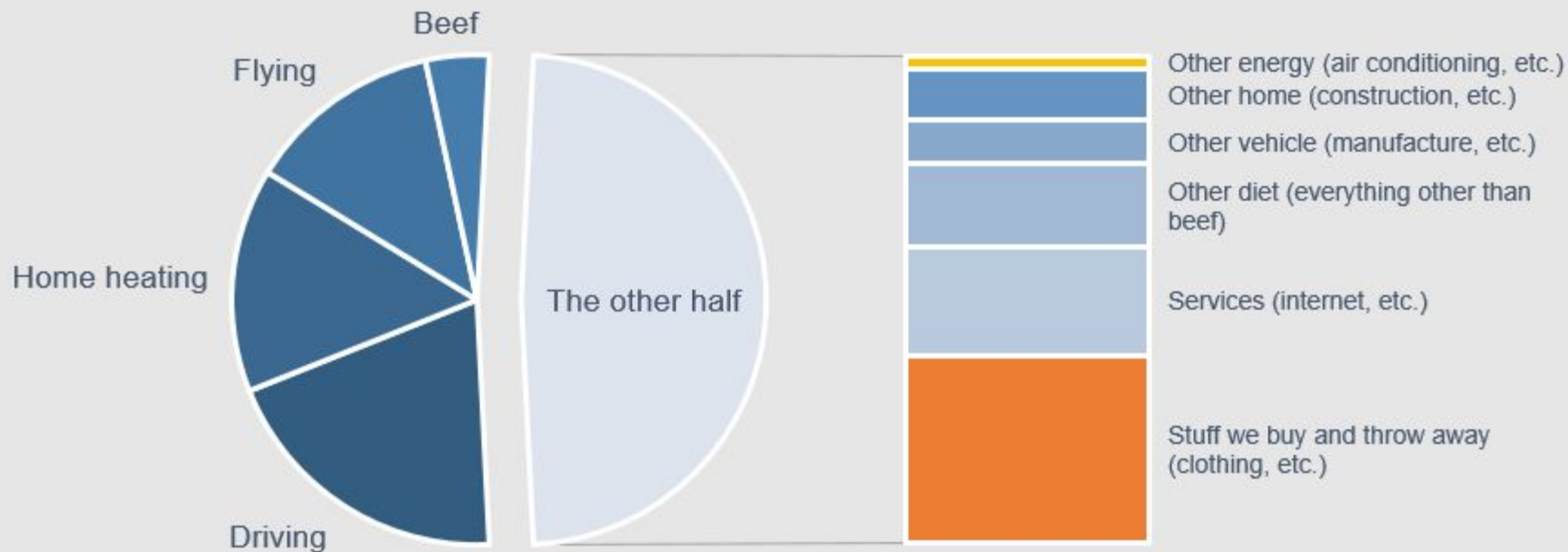
Fly Less

Eat Less Meat (Zero Red Meat)

If you own a home, get an ENERGUIDE audit and follow the recommendations.

Personal changes are NOT ENOUGH. *But changing your footprint make climate action part of daily life and sparks conversations. People act based on what people around them are doing -- not what they are saying.*

THE AVERAGE ONTARIAN'S CARBON FOOTPRINT



Our Pledge System

Guides people in REDUCING
THEIR FOOTPRINT

But also includes TALKING
and GETTING POLITICAL.

Open-ended, people choose
what works for them — this is
better than pressuring people
to adopt one solution
(veganism, bicycles, protest).

Food	PLEDGE	DONE	Daily Transport
Make an 'eat me first' bin in your fridge		3	Test drive an electric vehicle
Try a vegan restaurant		1	Change one regular errand to walk/bike
Add a vegan recipe to your repertoire		3	Reduce KM per year (or month) 10%
Try vegetarian or veganism for 2 weeks		5	Reduce KM per year (or month) 30%
Meatless Mondays (or your own schedule)		10	Move to reduce family commute
Give up Beef (and other red meat)		15	Commute by transit, carpool or foot/bike
Become a vegetarian		20	Make your next car electric or plug-in
Become a vegan		30	Live car free
Home Efficiency			Air Travel
Set your washing machine to cold		2	Buy carbon offsets for your flights
Check Thermostat every time you go out		2	Make your next vacation a staycation
Modest Heating and Cooling		5	Fly ½ as much as last year
Get an ENERGUIDE energy audit		3	Take a 1-year Air Travel Break
Make the audit's suggested upgrades		15	Get your office to reduce business travel
Switch to green natural gas. (E.g. Bullfrog)		15	Quit Flying
Consumer Goods			Civics
Read a book about minimalism (E.g. The More <u>of</u> Less)		1	Talk about global warming more
Carry reusable bottle, cutlery and containers		2	Share your pledge on social media
Switch to reusable menstrual products (E.g. Diva Cup)		2	Research Indigenous Groups and their needs
Try to repair before replacing anything		3	Ask friends or family to pledge
Research efficiency of all major purchases		4	Volunteer or donate to a green charity
Buy mostly second-hand clothing		3	Prioritize the climate when you vote
Buy mostly refurbished electronics		3	Call all your representatives

Talk about Climate

- Communicate the severity of the problem
- Communicate possible solutions
- Communicate co-benefits of solutions
- Keep educating yourself -- follow National Observer, Grist, activists on Social Media

BUT START WITH QUESTIONS AND FEELINGS!

Katherine Hayhoe on talking about climate

Katherine Hayhoe is a climate scientist and an excellent communicator to boot!

Check out her youtube series **'Global Weirding'** and follow her on social media.

Please watch from: 3:15-7:15



Let's practice talking climate now.

- 1) Do you think about climate change often?
- 2) What struck you from this presentation so far?
- 3) Which solutions do you have questions about?

Social Change Theory

A committed and active minority can shift the broader public opinion. And we are at that point now -- you aren't alone!

Three studies on Belief Tipping Points

- 10% - Social Consensus through Influence of Committed Minorities, 2011 [1]
- 30% - From a Small to a Large Minority: Women in Scandinavian Politics, 1988 [2]
- 25% - Experimental Evidence For Tipping Points for Social Convention, 2018 [3]

[1] <https://journals.aps.org/pre/abstract/10.1103/PhysRevE.84.011130>

[2] <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9477.1988.tb00372.x>

[3] <https://science.sciencemag.org/content/360/6393/1116.editor-summary>

Policy Changes

We *have solutions* in most areas. But encouraging people to switch individually according to their interest and ability won't do it. We need to update regulations and redirect public resources.

This is why getting political is a key component of our pledge system.

#Greennewdeal

M.P Peter Julian has introduced a Green New Deal motion for Canada. **Contact your MP** and tell them you support it.

More info available here:
<https://our-time.ca/#motion>



3.5 % Rule

Erica Chenoweth suggests that no government can withstand an ongoing challenge by 3.5% of its population without either accommodating the movement or (in extreme cases) disintegrating.

85,000 in Toronto
1 Million Across Canada



PUT AN UPCOMING PROTEST HERE!!

Disruption Will Not Work on Its Own

Disruption can dislodge present corruptions -- but often this is just replaced with new corruptions (e.g. Arab Spring).

Just having people in the streets isn't enough, we also need to identify and support bureaucrats and politicians who understand how serious our crisis is!

Talk to everyone you know in government. Talk to bankers and business people. Talk to them in depth. Especially if you have an existing relationship. Make them really feel the danger. We are all in the same boat!

Join a group!



OTHER GROUPS: [Artists for Climate and Migrant Justice and Indigenous Sovereignty](#), [Fridays for Future](#) (Climate Strikes), [Climate Fast](#), [MobilizeTO](#) (lobbies city hall) [Toronto350](#), [Drawdown Toronto](#), [Indigenous Climate Action](#),

Transform Everything: More groups

Bicycle Advocacy: **Cycle Toronto**

Transit Advocacy: **TTC Riders**

Self-reliance and Right to Repair: **Toronto Tool Library, Repair Cafe**

Changing our personal patterns

- Join a group
- Join a group
- Join a group
- Make a habit of talking climate and reading climate news.
- Schedule climate action -- **IN YOUR CALENDAR!**
- Consider taking significant time off work within the next six months -- **you won't regret it.**

Questions?

Contact us: contact@climatepledgecollective.org

<https://climatepledgecollective.org>

IG: @climatepledgecollective

TW: @climatepledgeco

FB: @ClimatePledgeCollective

Slides prepared in partnership with climate-concerned volunteers.

Please consider making a donation to help us
continue to activate and support the collective.

