

3 Thursdays in November at 7:30 PM

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**Northumberland
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November 11: Financial Actions

Sara Alvarado, Queen's University

November 18: Global Actions

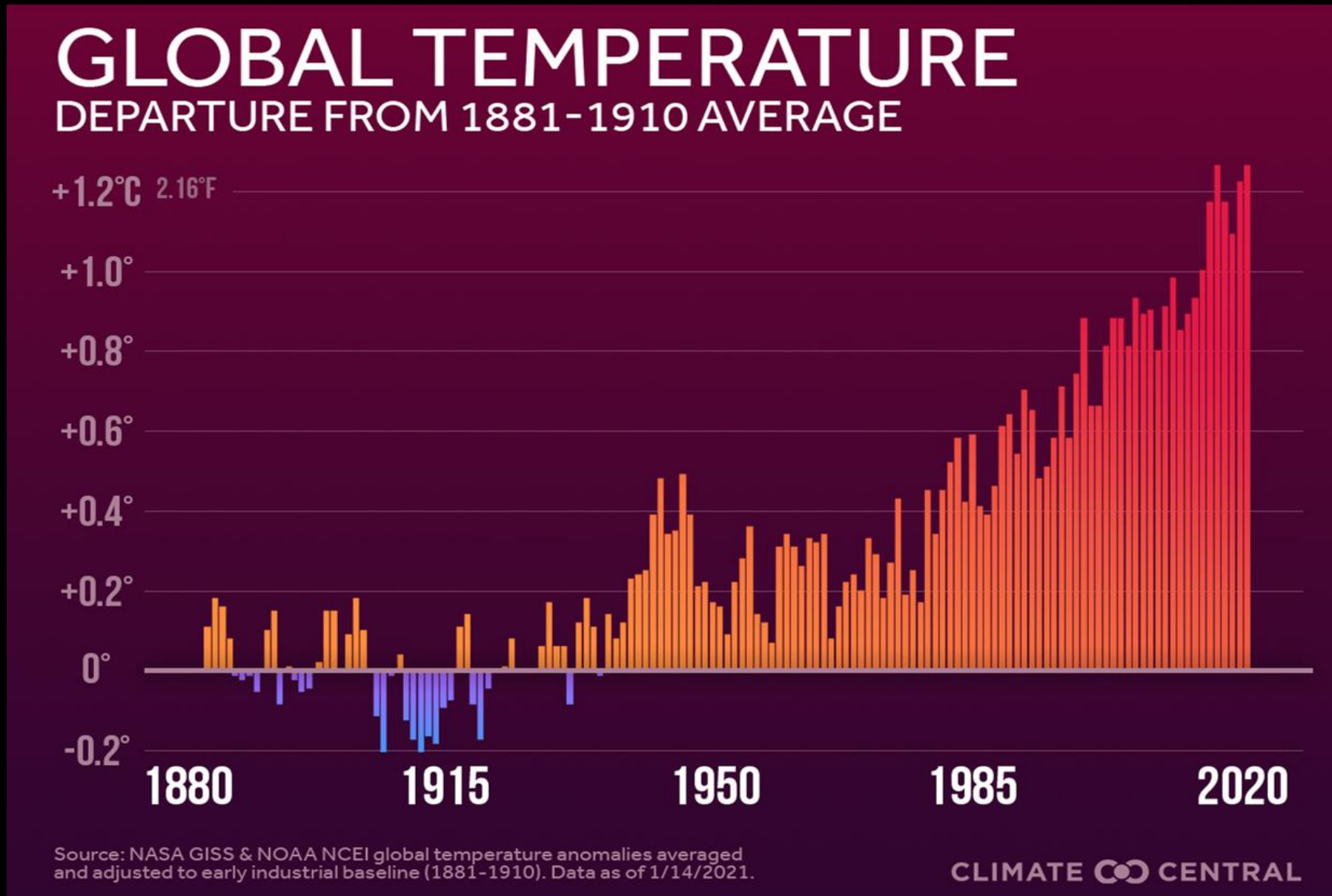
Expert panel moderated by Diana Fox-Carney

November 25: Local Actions

Expert panel moderated by Denny Manchee

Pathways to Net Zero:
A climate change mini-series

There's no denying it: Climate change is real



COP26 stands for **Conference of the Parties**, and is attended by countries that signed the United Nations Framework Convention on Climate Change (UNFCCC) treaty in 1994. 2021 is the **26th** meeting.



Don't just talk - act on climate, Queen Elizabeth signals to world leaders

*"Extraordinary, isn't it?
I've been hearing all
about COP..."*

*"Still don't know who is
coming..."*

*"We only know about
people who are not
coming.... It's really
irritating when they talk,
but they don't do."*

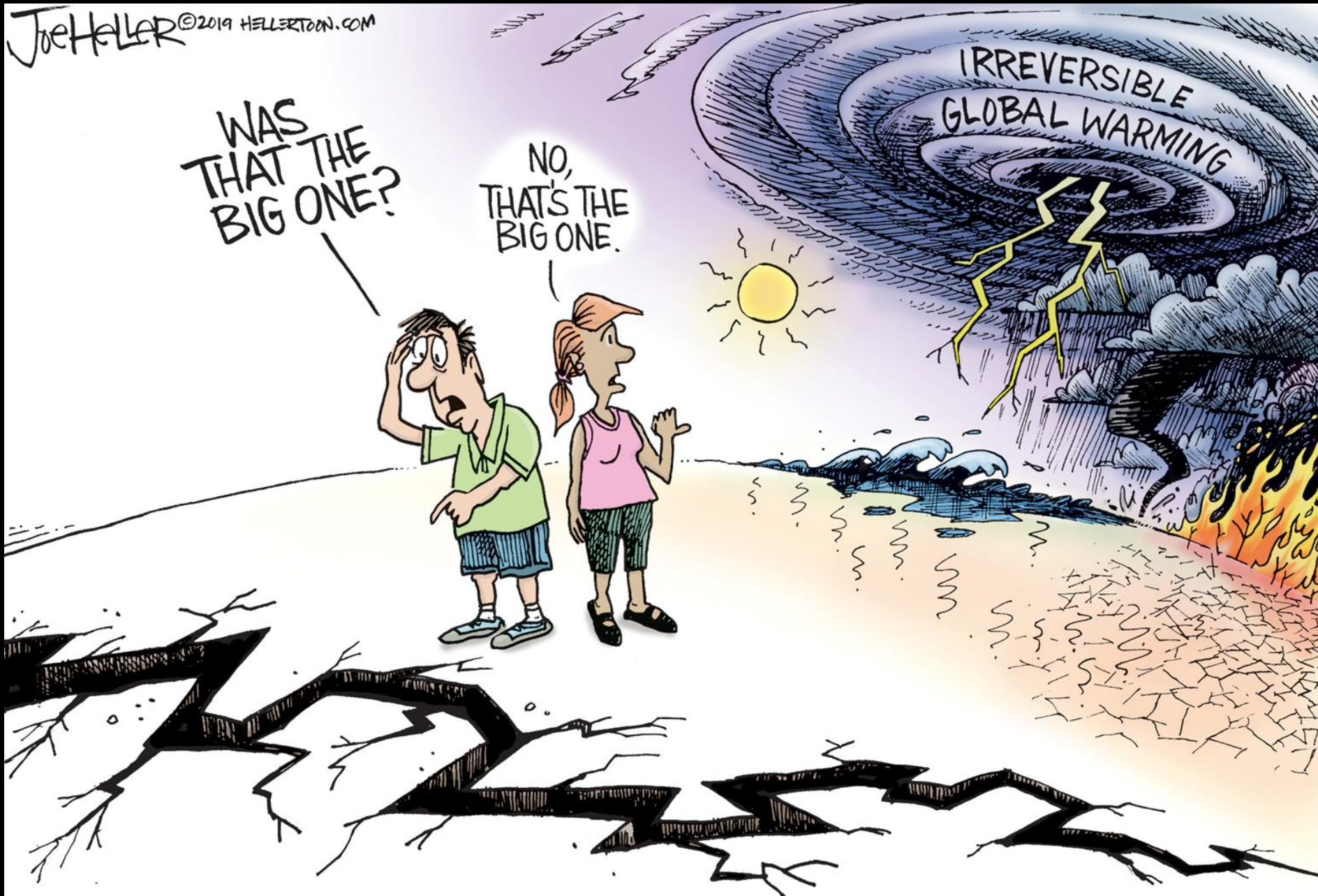
<https://www.bbc.com/news/uk-58923924>



Joe Heller ©2019 HELLERTON.COM

WAS THAT THE BIG ONE?

NO, THAT'S THE BIG ONE.

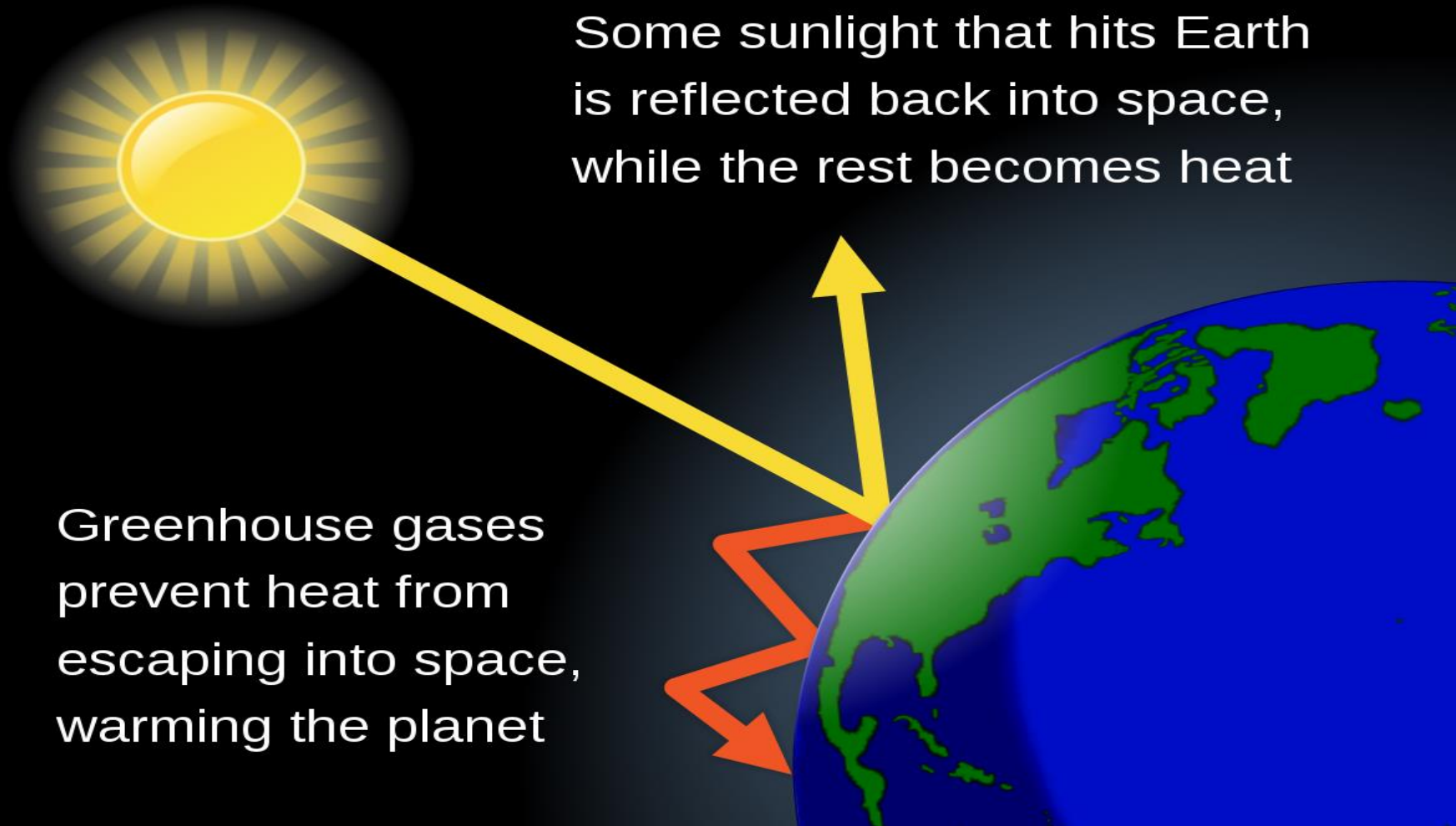


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GHG Green house Gas emissions

The Greenhouse Effect





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To keep to 1.5°C

CO₂ emissions would
have to decline by
45% before **2030**



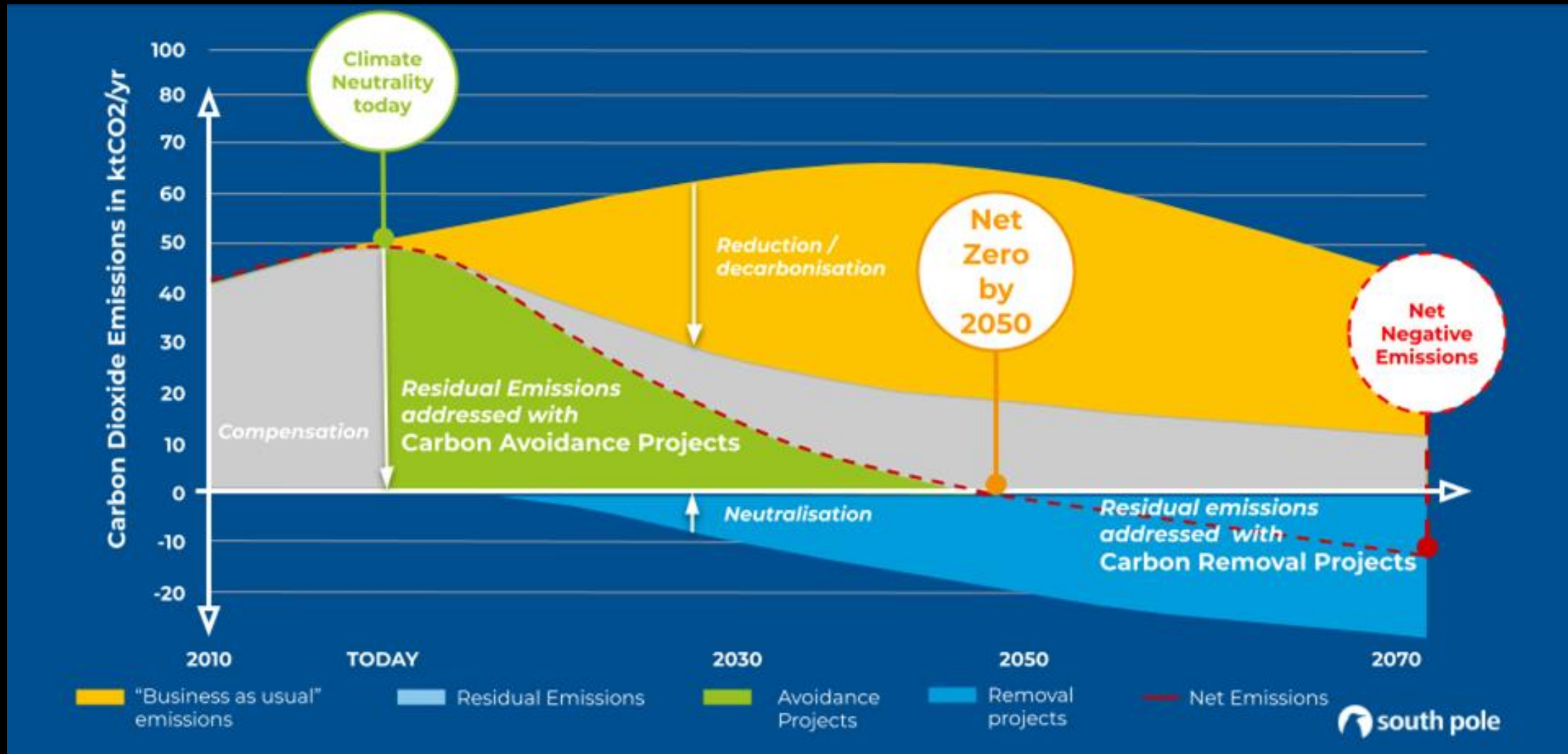
renewable energy will
need to supply
70-80% of power
by **2050**



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Net Zero refers to the balance between the amount of GHG produced and the amount removed from the atmosphere.



Carbon Footprint

is the amount of carbon dioxide and other carbon compounds emitted due to the consumption of fossil fuels by a particular person, group, etc.



Top options for reducing your carbon footprint

Average reduction per person per year in tonnes of CO2 equivalent



Live car-free
2.04



Refurbishment
/renovation
0.895



Battery electric car
1.95



Vegan diet
0.8



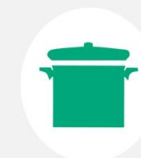
One less long-haul
flight per year
1.68



Heat pump
0.795



Renewable energy
1.6



Improved cooking
equipment
0.65



Public transport
0.98



Renewable-based
heating
0.64

Source: Centre for Research into Energy Demand Solutions

BBC

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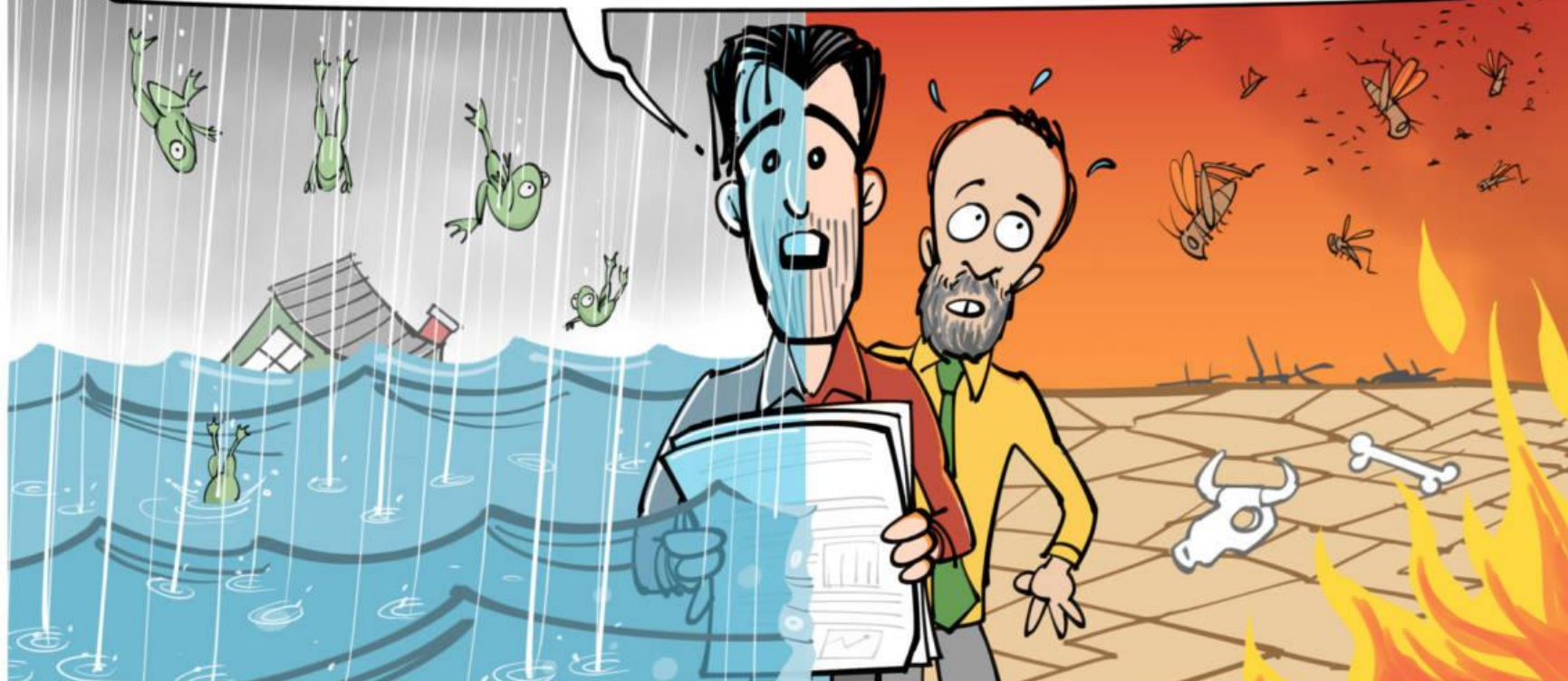
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Intergovernmental Panel on Climate Change IPCC

is the United Nations body for assessing the science related to climate change.



"I CAN DEFINITELY ATTEST TO BEING UNNERVED BY SOME OF OUR FINDINGS."



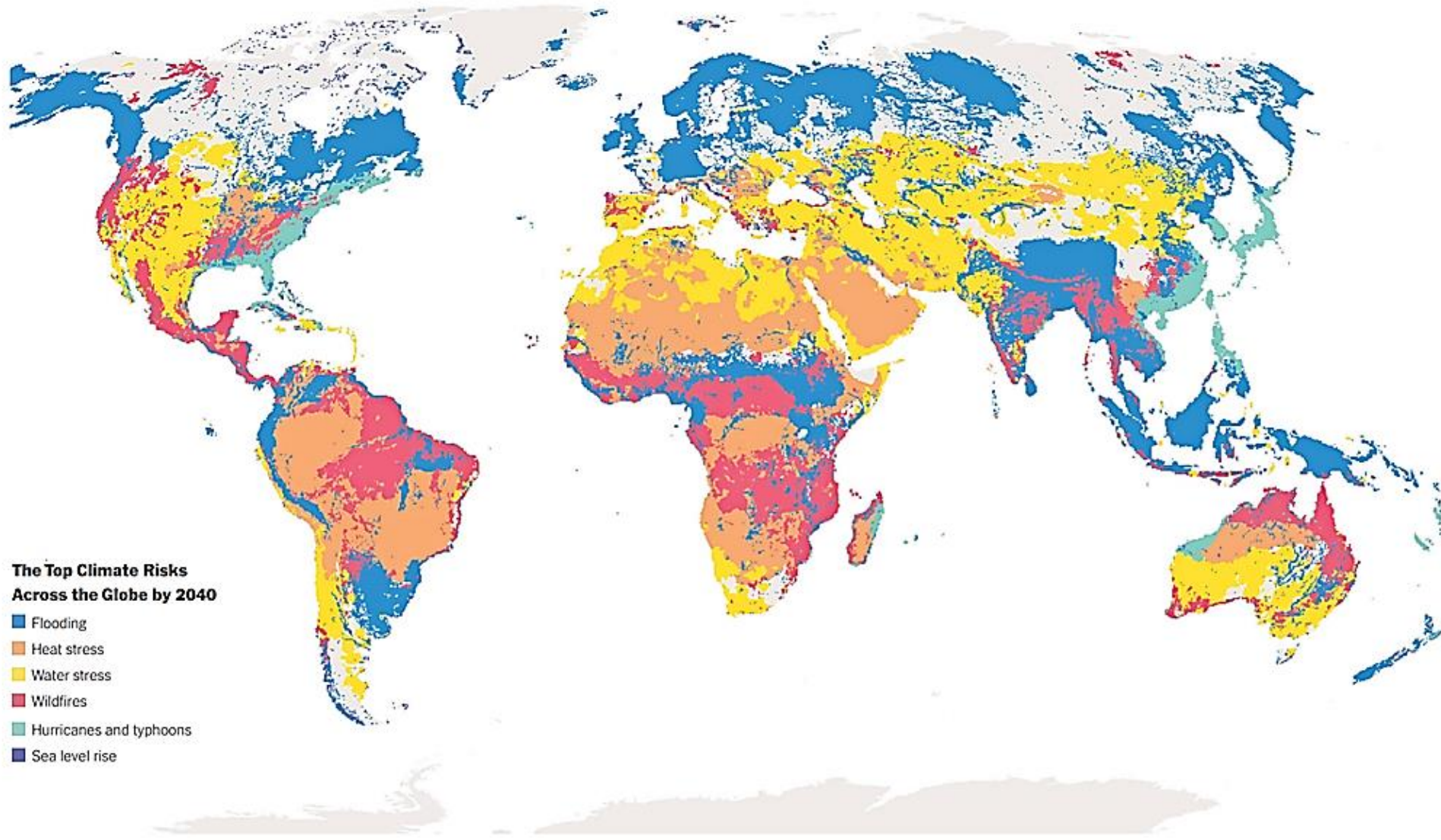
Fiore MarkFiore.com

KQED.org

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Global Climate Risks by 2040





SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



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Environmental, Social & (corporate) Governance

is an evaluation of a corporation's collective conscience for social and environmental factors.

Typically, a score is compiled from data collected from +/- 450 metrics related to intangible assets within the corporation.





RAMIREZ The DAILY SIGNAL
2019 © CREATORS.COM

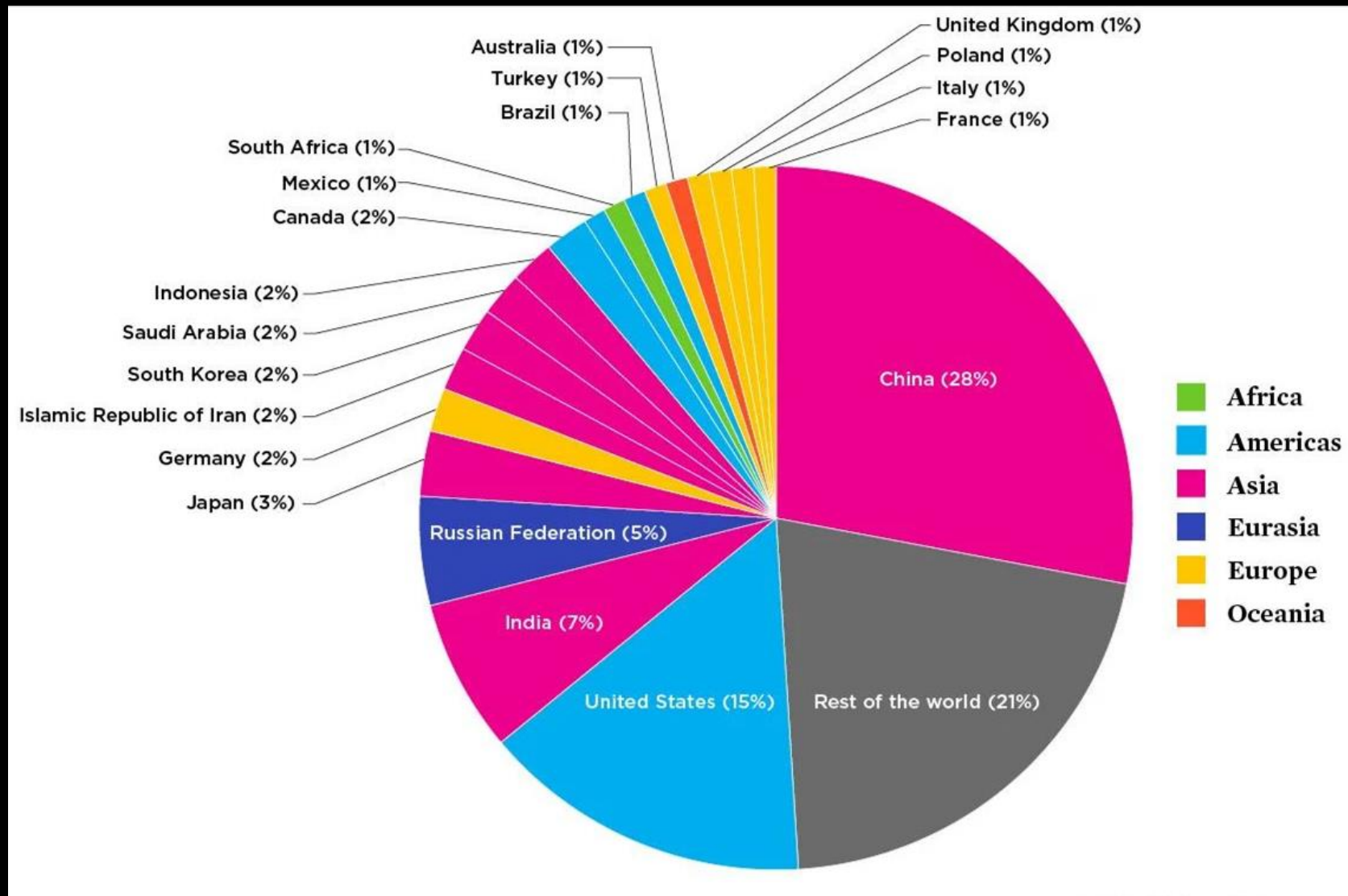
LET'S THROW
ANOTHER GLOBAL
WARMING REPORT
ON *the* FIRE.

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G-20 countries produce 80% of GHG emissions

CO₂ levels are expected to increase by 4% across the G20 group in 2021 after a 6% drop due to the pandemic in 2020; Argentina, India and China are set to exceed their 2019 emissions levels.



Science-based targets for corporations

Setting targets: the process



COMMIT

Commitment Letter signed by the CEO



DEVELOP

Define targets that comply with the eligibility criteria



SUBMIT

Fill in and submit the Science-Based Target form

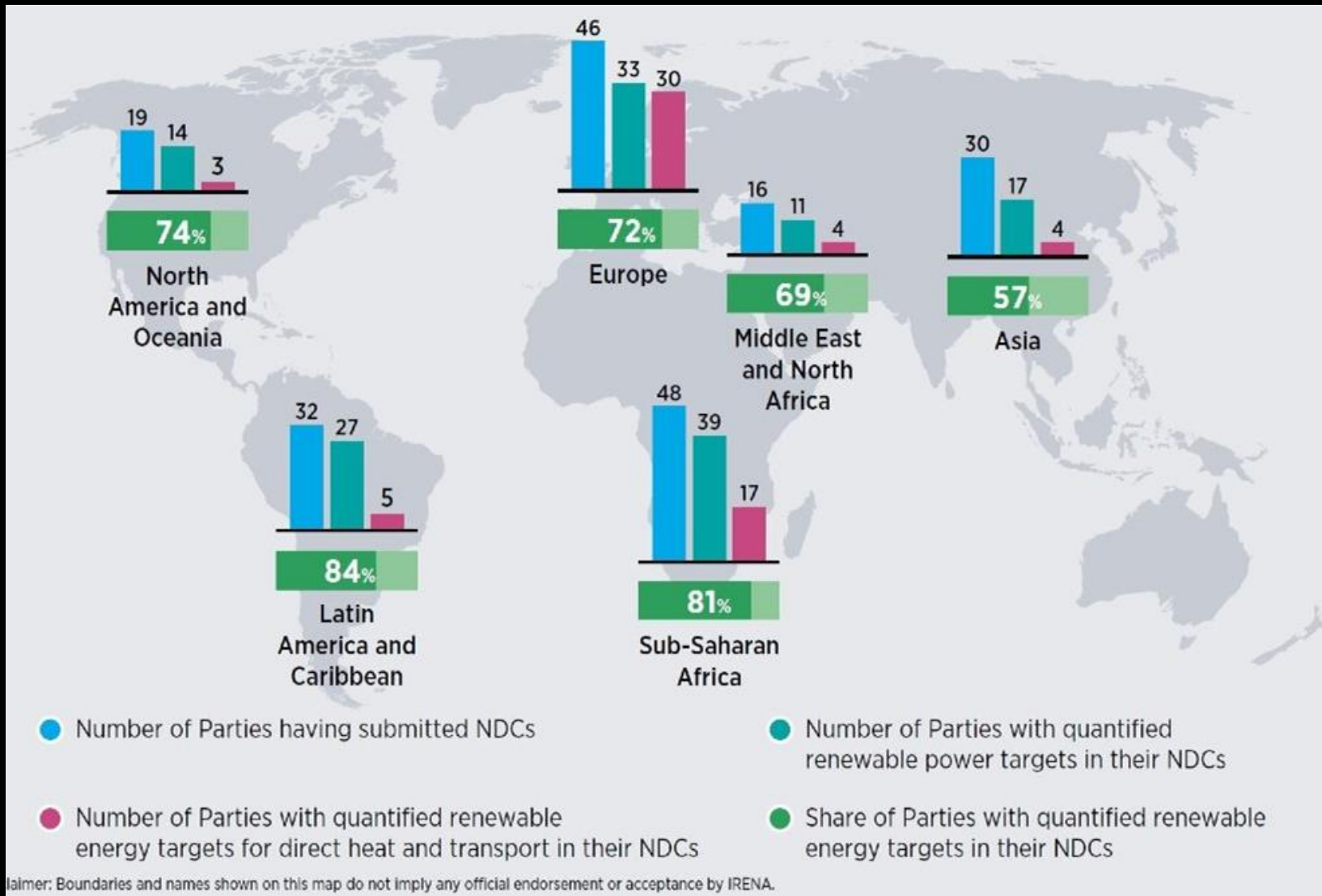


DISCLOSE

The targets will be publicly disclosed on the website

Emissions reduction targets are defined as 'science-based' if developed in line with the scale of reductions required to keep global warming below 2C from pre-industrial levels.

Nationally Determined Contributions (NDC) by country



are non-binding national plans highlighting climate actions, including climate related targets for greenhouse gas emission reductions, policies and measures governments aim to implement in response to climate change and as a contribution to achieve the global targets set out in the Paris Agreement.



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A Just Transition



Government
of Canada

Gouvernement
du Canada



Home

Participate

Closed Consultations

NRCan Home Page

[Home](#)

Just Transition



is an approach to economic, environmental and social policy that aims to create an equitable and prosperous future for workers and communities as the world builds a low-carbon economy.

No worker or community can be left behind, so government climate action must be focused on those workers.

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Supporter Quote



“I want to do my small part of supporting those hard-working men and women that keep me warm, bring food to my table. I want to say, Thank you.”

Valda, Newfoundland & Labrador-

JOIN US!
CANADA ACTION
CanadaAction.ca



Supporter Quote



“I support Canadian oil and natural resources to the fullest. I think that we should use our own resources instead of buying foreign.”

Joel, Nova Scotia-

JOIN US!
CANADA ACTION
CanadaAction.ca

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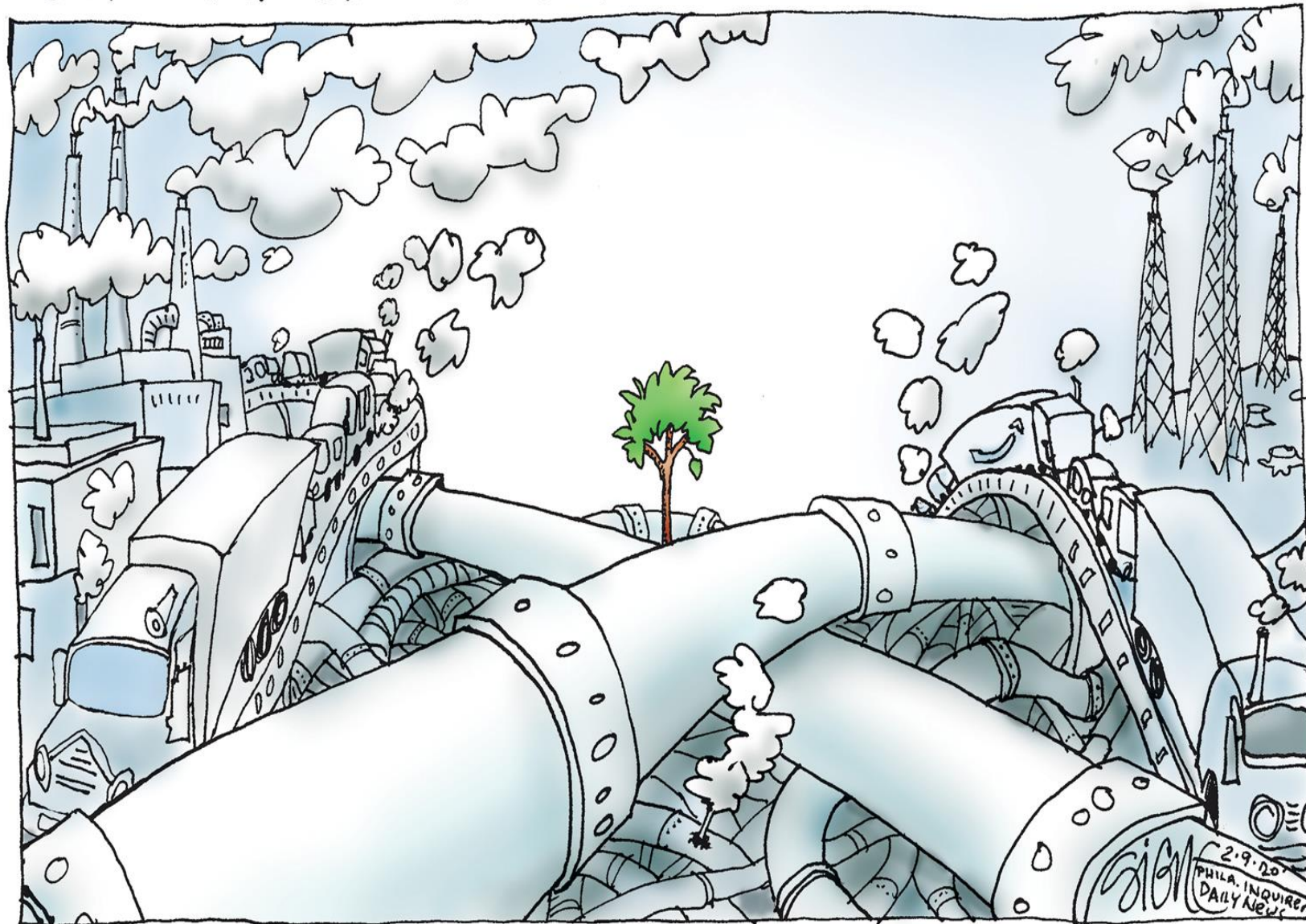
Canada needs a Just Transition Act

Tell your MP to deliver.

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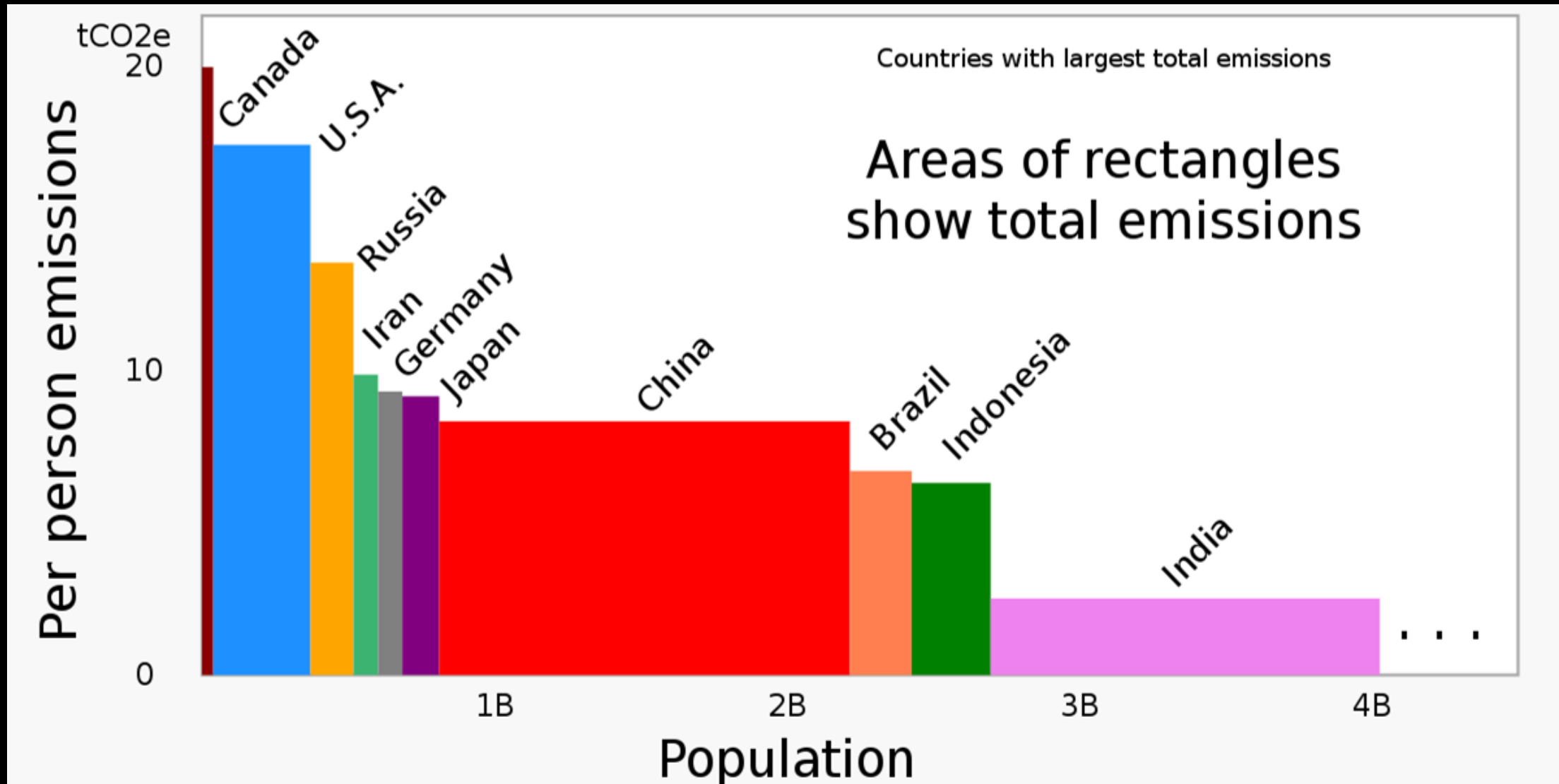
OUR NEW CLIMATE PLAN: PLANT A TREE!...



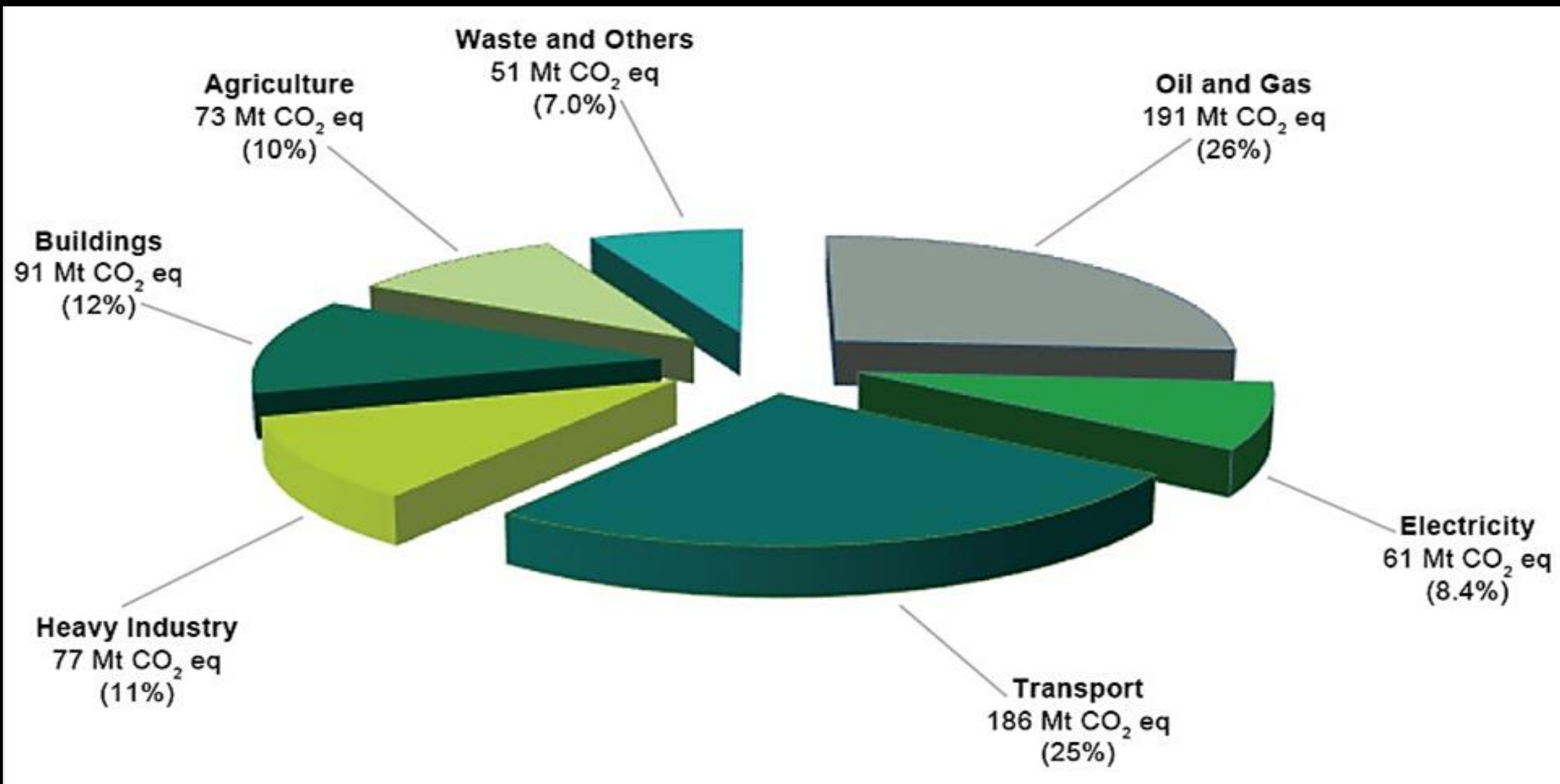
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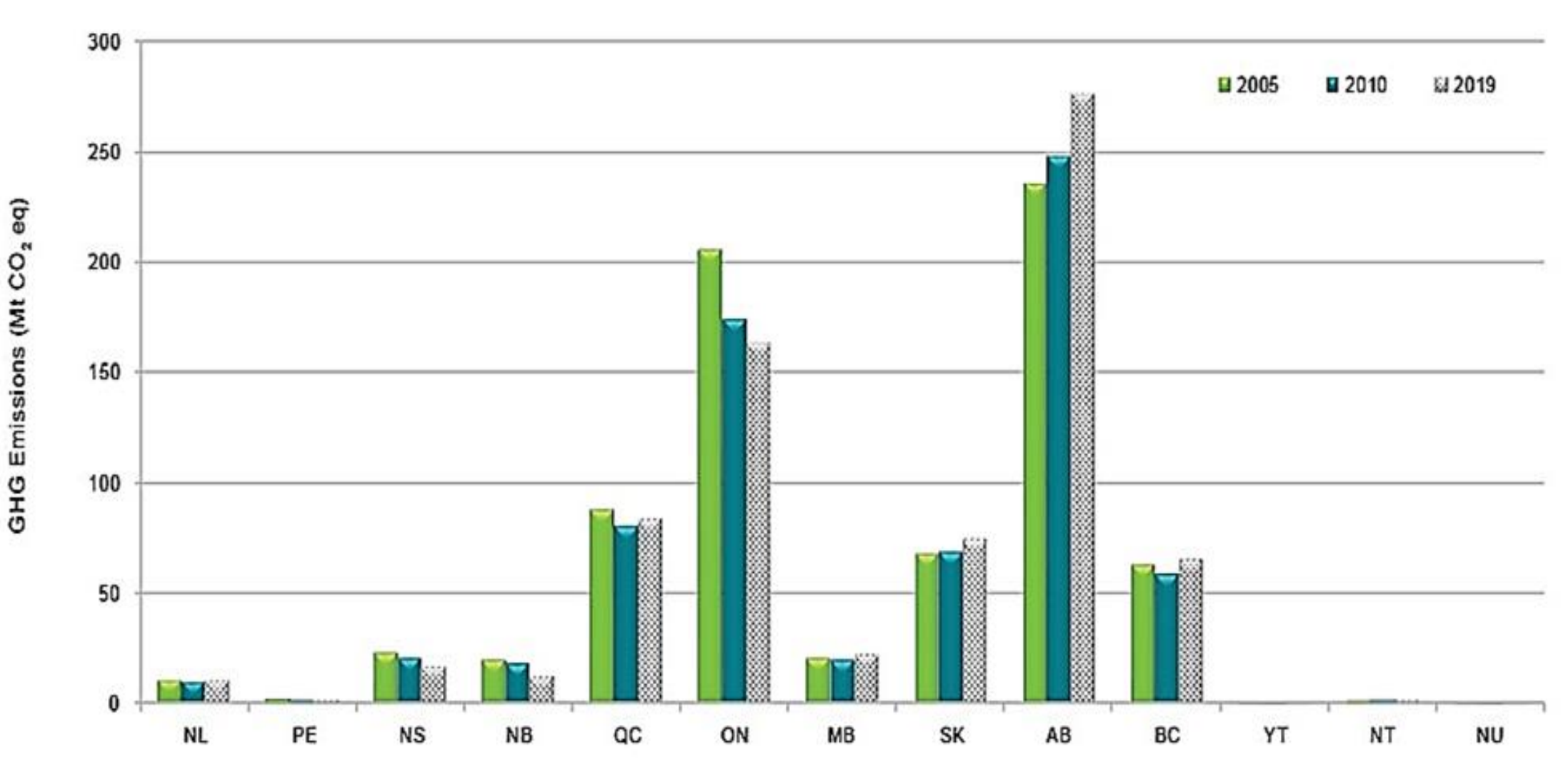
GHG emissions per person- Canada tops the list!!



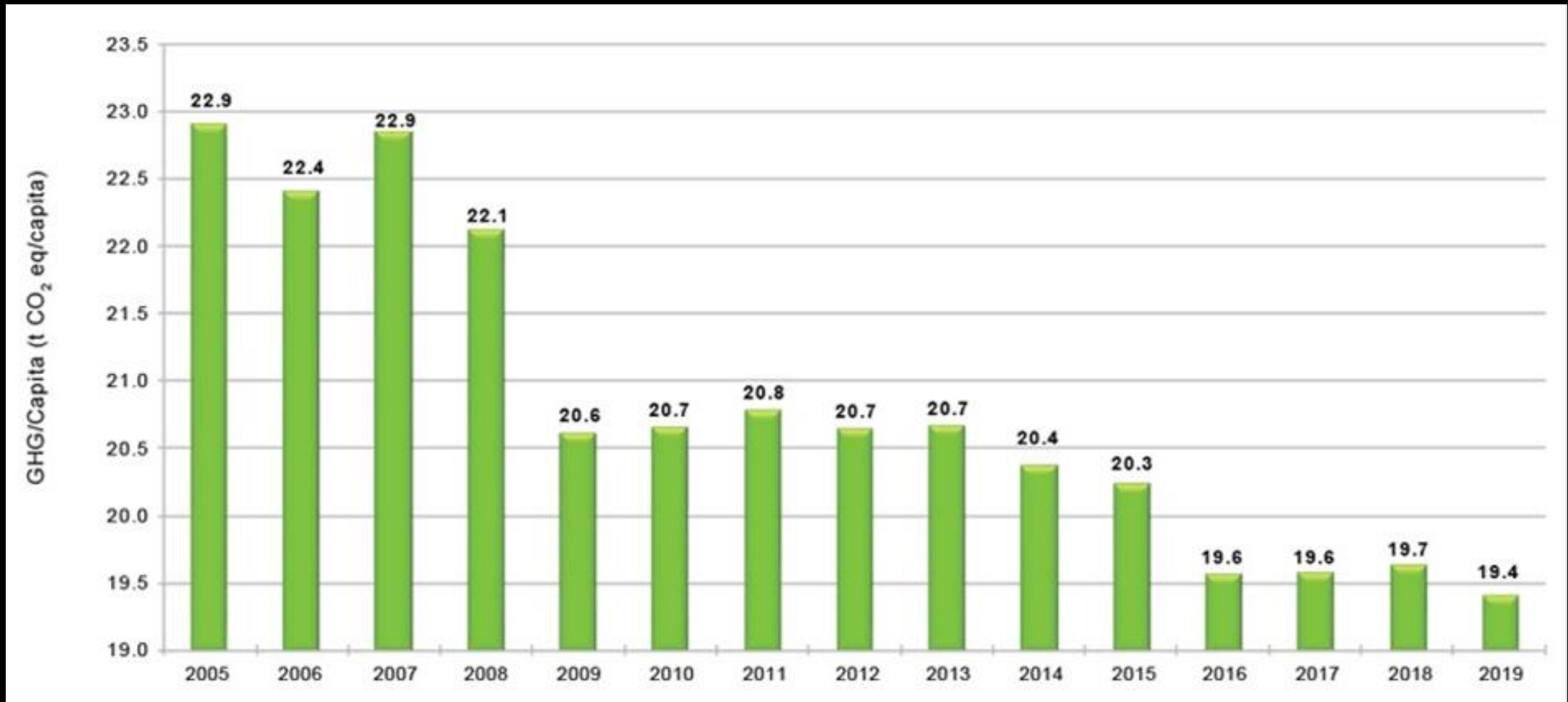
Breakdown of Canada's GHG gas emissions by sector (2019)



Greenhouse gas emissions by province & territory in 2005, 2010 and 2019

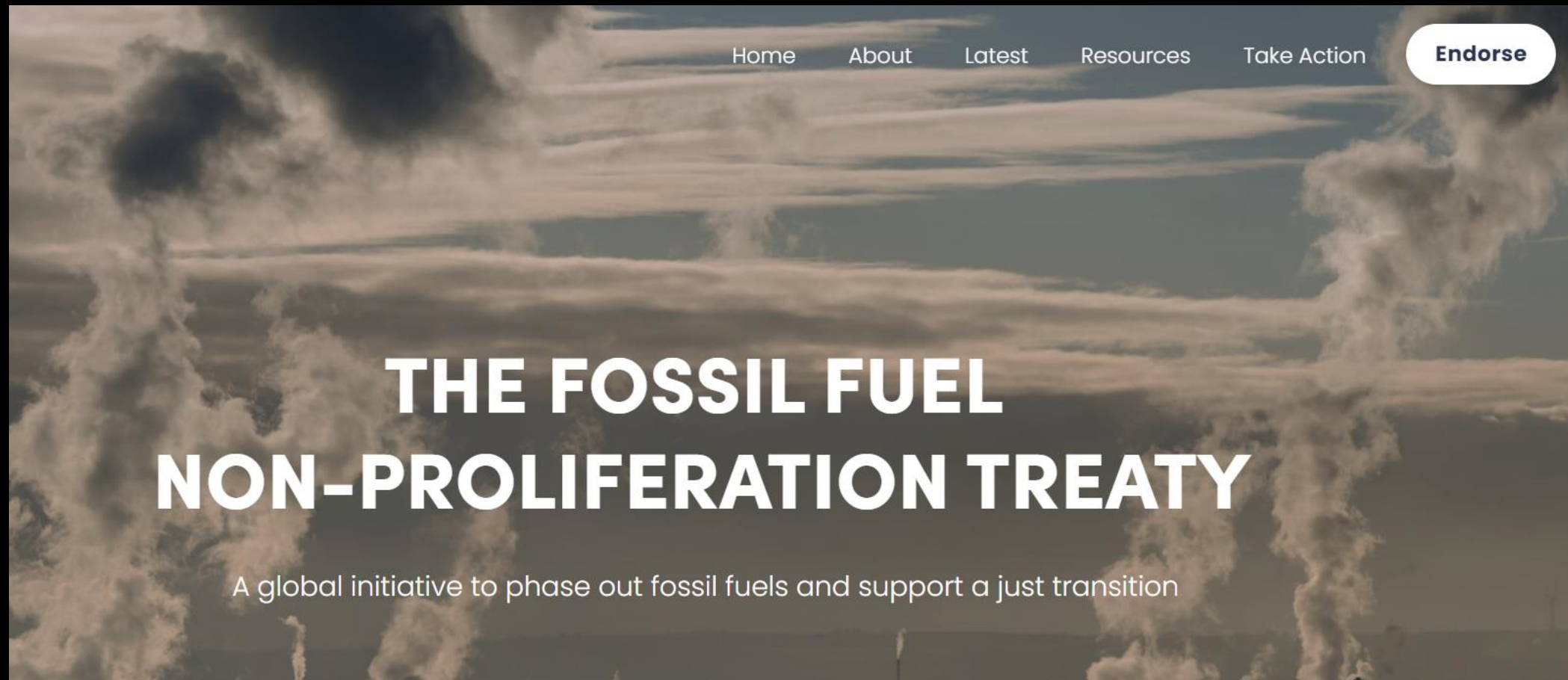


Canadian per capita GHG emissions falling (2005 to 2019)



<https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/sources-sinks-executive-summary-2021.html>

The Fossil Fuel Non-Proliferation Treaty Initiative was launched in 2020





TOP 20 OIL & GAS COMPANIES IN THE WORLD IN 2021

Despite the headwinds facing the oil and gas industry, oil still makes up the largest share of the global energy mix, fueled by the giant corporations that make up Big Oil.

Here are the biggest oil and gas companies by market cap* in 2021.
*Data as of October 7, 2021. Figures have been rounded.

20 companies in 10 countries Flag size = production



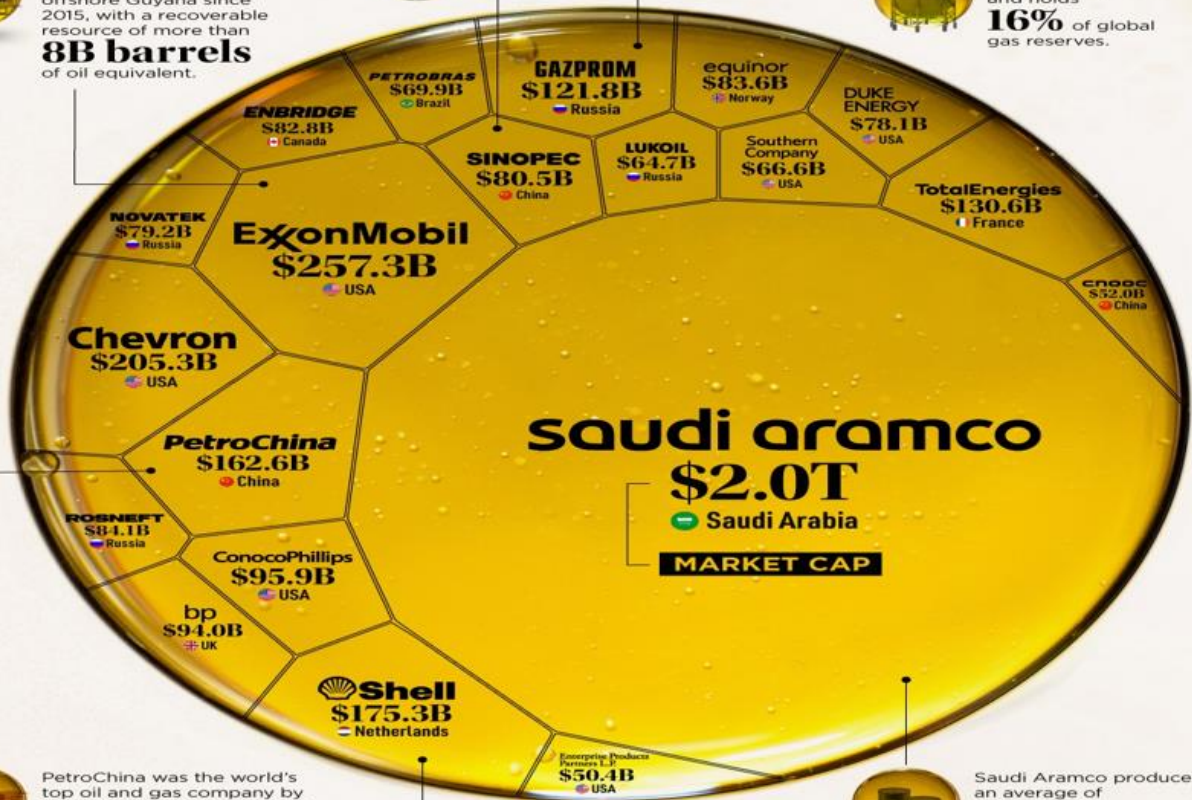
ExxonMobil has made 18 oil discoveries in offshore Guyana since 2015, with a recoverable resource of more than **8B barrels** of oil equivalent.



Sinopec, primarily owned by the Chinese government, is **Asia's largest oil refiner**.



Gazprom is the world's leading gas producer and holds **16%** of global gas reserves.



PetroChina was the world's top oil and gas company by revenue in 2020, generating **~\$281B** in sales.



Shell is among the several oil majors investing in the energy transition, with **\$3.2B** spent in clean energy investments since 2016.



Saudi Aramco produced an average of **9.2M barrels** of crude oil per day in 2020 and is among the world's most profitable companies.

Source: CompaniesMarketcap.com

Climate Change Ranked Performance: Canada 4th last

Rank		Country						
			20.	▼	Ukraine	41.	▼	Spain
			21.	▼	Luxembourg	42.	▲	Turkey
1.*	-	-	22.	▼	Egypt	43.	▲	Algeria
2.	-	-	23.	▼	France	44.	▲	Bulgaria
3.	-	-	24.	▲	Indonesia	45.	▲	Japan
4.	-	Sweden	25.	▼	Brazil	46.	▼	Argentina
5.	▲	United Kingdom	26.	▲	Thailand	47.	▼	Czech Republic
6.	▼	Denmark	27.	▼	Italy	48.	▲	Poland
7.	▼	Morocco	28.	▲	New Zealand	49.	▼	Cyprus
8.	▲	Norway	29.	-	Netherlands	50.	▼	Hungary
9.	▲	Chile	30.	▼	Romania	51.	▼	Slovenia
10.	▼	India	31.	▼	Slovak Republic	52.	-	Russian Federation
11.	▼	Finland	32.	-	Mexico	53.	▲	Korea
12.	▲	Malta	33.	▼	China	54.	▲	Australia
13.	▲	Latvia	34.	▼	Greece	55.	▼	Kazakhstan
14.	▲	Switzerland	35.	▲	Austria	56.	▼	Malaysia
15.	▼	Lithuania	36.	▲	Belarus	57.	▲	Chinese Taipei
16.	▲	European Union (28)	37.	▼	South Africa	58.	▼	Canada
17.	▲	Portugal	38.	▼	Estonia	59.	▼	Islamic Republic of Iran
18.	▲	Croatia	39.	▲	Ireland	60.	-	Saudi Arabia
19.	▲	Germany	40.	▼	Belgium	61.	▼	United States

* None of the countries achieved positions one to three. No country is doing enough to prevent dangerous climate change.

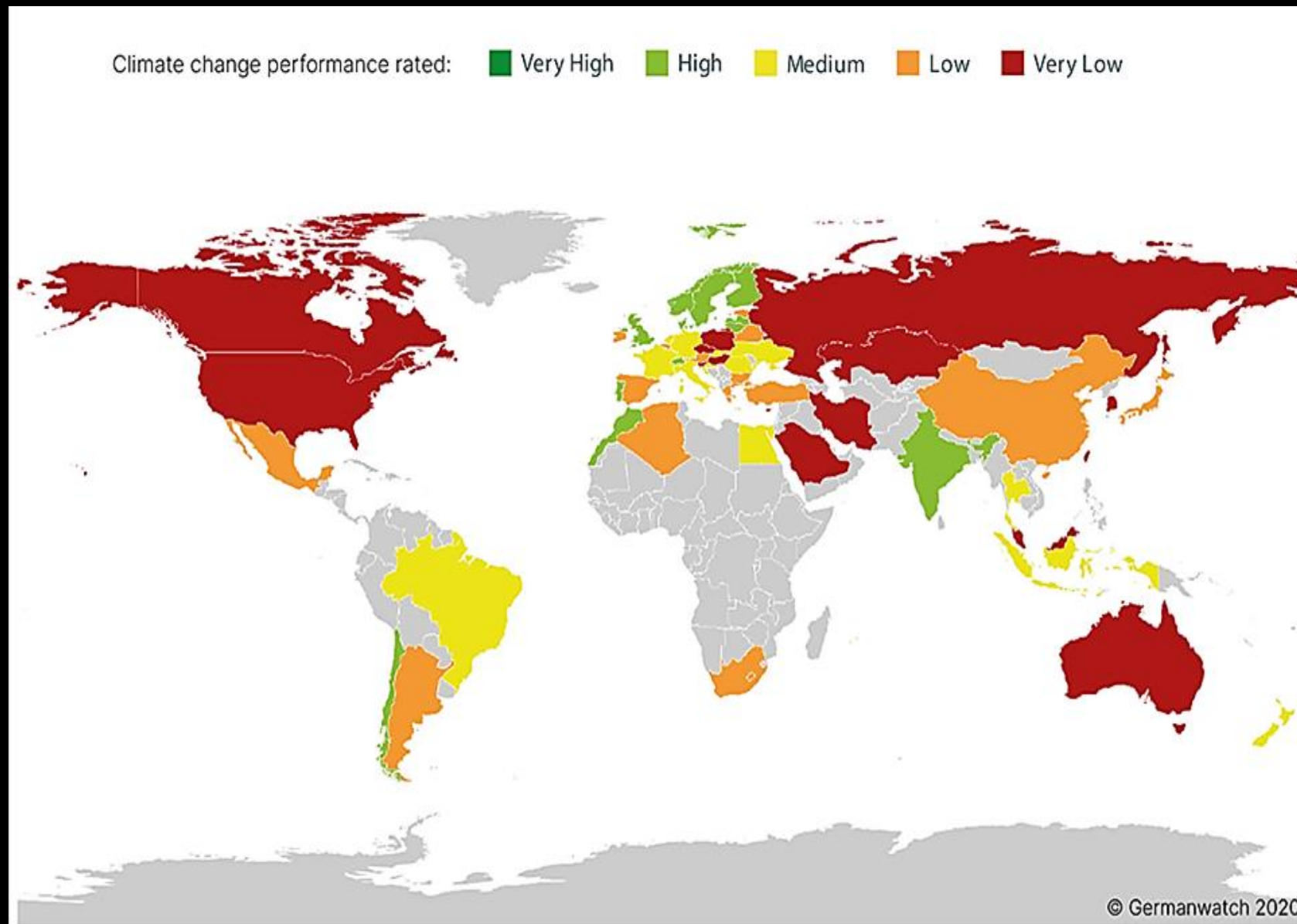
© Germanwatch 2020



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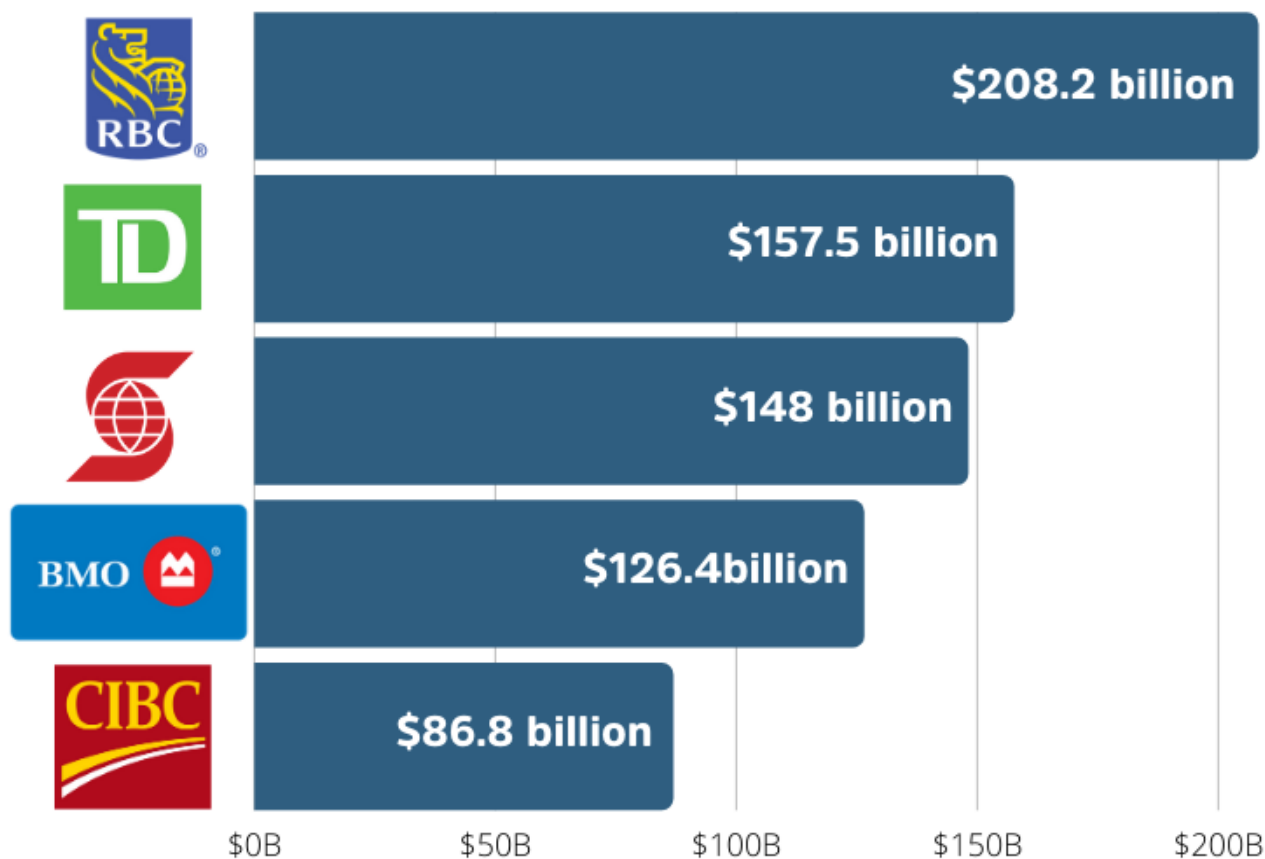
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Climate Change Overall Performance 2021



Canada's banks increase fossil fuels investments

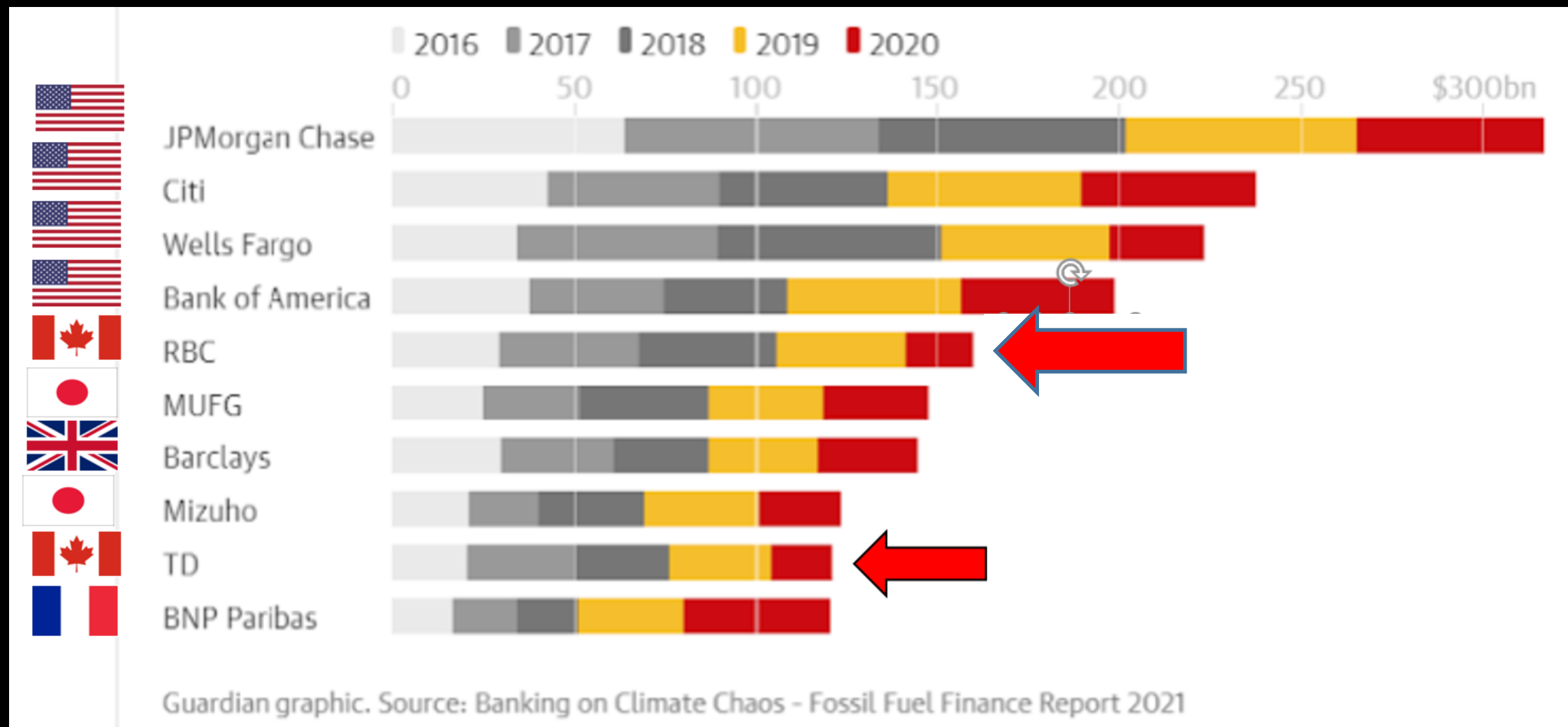
Fossil Fuel Investments Since 2016



Source: RAN 2021 Banking on Climate Change Report

Since the Paris Agreement, Canadian banking giants RBC, TD, Scotiabank, BMO, and CIBC have poured over **\$720 billion** into climate-destroying fossil fuel companies, providing the corporations most responsible for the climate crisis continued funds to grow.

RBC (5th) & TD (7th) of 60 global banks investing in oil



MorinToons Syndicate

MORIN
1951-1984



BURN,
BABY,
BURN!

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What is GFANZ?

Glasgow Financial Alliance for Net Zero

Bringing together the financial sector to accelerate the transition to a net-zero economy.



RACE TO ZERO

Financing Roadmaps

Intro

Explore Opportunity

17 Roadmaps

Methodology

Report

and across
all regions*

*0.6 trillion of investment is not allocated to any specific region

32 trillion



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