



Comparison of the Climate Policy of the UK and Canada in Response to the Paris Climate Accords



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INTRODUCTION

Anthropogenic climate change is an extinction level threat. Its primary cause is the greenhouse effect, which is the warming of the earth through the trapping of infrared light between the surface and atmosphere. Greenhouse gases like CO₂, methane, CO, water vapor, etc. build up in the ozone layer and prevent infrared sunlight from escaping.

In order to combat climate change and mitigate its effects, the United Nations Framework Convention on Climate Change created the Paris Climate Accords, which set a goal to reduce global carbon emissions and keep global temperatures well below 2 degrees Celsius above pre-industrial temperatures. The agreement asks for developed nations (such as Canada and the United Kingdom) to take the lead in reducing emissions.

The United Kingdom and Canada released climate action plans titled:

- "The UK'S Integrated National Energy and Climate Plan (NECP)", which sets a preliminary goal of reducing emissions by 40% from 1990 levels by the year 2030.
- And "The Pan-Canadian Framework on Clean Growth and Climate Change", which sets a preliminary goal of reducing emissions to 30% below 2005 levels by the year 2030.

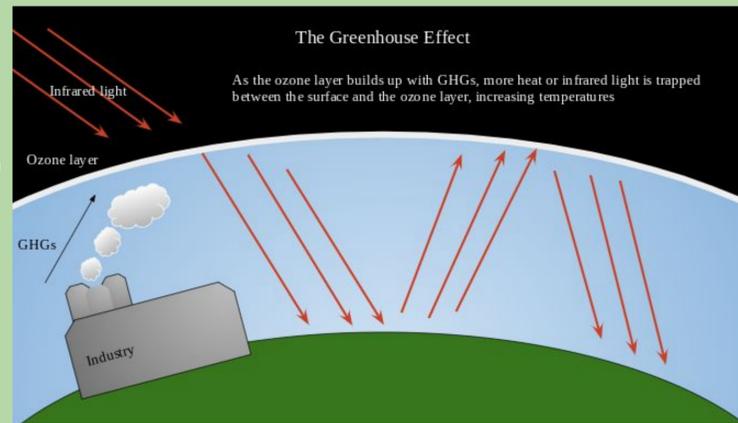


Figure 1: Park, R. (2019). *The Greenhouse Effect*.

RESEARCH METHODOLOGIES

In this project, both qualitative and quantitative data were collected online.

Quantitative data

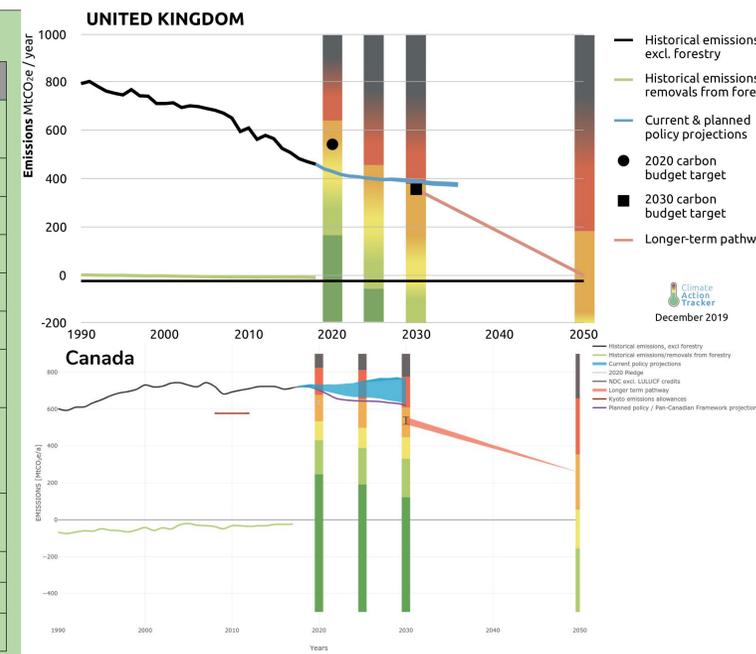
- Emissions data in both raw masses (MtCO₂e) of GHGs and percent changes year to year and from the base year of 1990.
- Data was primarily collected through a third party source -- climate action tracker -- which displayed the progression of emissions throughout the past three decades.

Qualitative data

- Climate policy documents describing specific programs and laws.
- Data was collected through the British and Canadian government websites where policy papers are released for the public.

DATA AND FINDINGS

Canadian Policies	Document Type	United Kingdom Policies	Document Type
Canada-wide strategy on zero plastic waste	Waste	National Emergency Plan for downstream gas and electricity	Energy
Low Carbon Economy Fund	ALL	Charging Infrastructure Investment Fund	Transportation
Climate Action Incentive Fund	Industry	ASEAN Low Carbon Energy Programme	Industry
Greenhouse Gas Pollution Pricing Act	Houses/Buildings, Industry	UK National Energy and Climate Plan (NECP)	ALL
Clean Fuel Standard	Energy	Smart meters: unlocking the future	Houses/Buildings, Vehicles
Canadian Agricultural Partnership	Agriculture/Forestry	Carbon Emissions Tax	Homes/Buildings, Industry
Regulations Amending the Heavy-duty Vehicle and Engine Greenhouse Gas Emission Regulations	Transportation	Upgrading our energy system: smart systems and flexibility plan	Energy
Locomotive Emissions Regulations	Transportation	Exempt zero-emission capable taxis from Vehicle Excise Duty expensive car supplement	Transportation
Powering Past Coal Alliance	Energy	Industrial Strategy: building a Britain fit for the future	Industry
Agricultural Clean Technology Program	Agriculture	Automotive Sector Deal	Transportation
Innovative Solutions Canada	ALL	Control for Low Carbon Levies	Energy
		Cycling and walking investment strategy	Transportation



ANALYSIS AND CONCLUSIONS

As of 2017, Canada's

- Emissions have risen 114 MtCO₂e, 18.94% up from 1990.
- Removals from forestry have been reduced by 64.71% since 1990.

Since 2005, their emissions have decreased by just 1.92%.

The climate action tracker provides two projections

- The max puts 2030 Canadian emissions at 26.74% above 1990 levels and 4.52% over 2005 levels.
- The min puts 2030 Canadian emissions at 4.65% above 1990 levels and 13.6% below 2005 levels.

As of 2018,

- The United Kingdom's emissions are 42.07% below 1990 levels.
- Additionally, their removals from forestry have increased by an average of 0.3929 MtCO₂e per year since 1990.

The climate action tracker provides one U.K. projection scenario, which

- Presents an average decrease in emissions of 11.71 MtCO₂e/year, but displays a slowing rate, with emissions projected to be decreasing by 2 MtCO₂e per year from 2033 to 2035.

Progress Summary:

- The UK is making better progress in reducing its emissions than Canada, having achieved their preliminary goal.
- Conversely, Canadian emissions have continuously increased over the past 30 years and removals from forestry have decreased.

Neither country is projected to meet the net zero goal set by the UN.

This short term data seems to suggest that the Paris climate accords have not been successful.

Differences in Climate Policy:

- Canada has investment more in businesses (Low carbon economy fund, climate action incentive fund, innovative solutions Canada)
- The United Kingdom is approaching climate change through direct government action, having no major investment funds to date.

The decision to **avoid investment in the private sector** may have **reduced U.K. emissions to a greater degree**.

IMPLICATIONS AND NEXT STEPS

My findings indicate that investment in businesses to combat climate change is a less effective strategy than direct government action in the form of policies like taxes and civil infrastructure. Outside of the direction of investment, it is difficult to draw meaningful conclusions. This difficulty contributes to the understanding that climate change is an evolving and complex issue. My findings also indicate that the Paris Climate Accords have not proved to be an effective treaty, as neither country is on track to reach their net zero emission goals.

For future work, I would recommend choosing issues that are on a smaller scale with fewer confounding variables so that it is easier to draw clear and concise conclusions from the research. Climate action is difficult to properly relate to reductions in emissions since almost everything in a country produces emissions. Upon further deliberation, I have come to the realization that decreases in emissions are not necessarily related to government involvement. The consumption and lifestyles of citizens may be more influenced by other factors such as pop culture, thus policies may not always be the driving factor in emissions reductions.

ACKNOWLEDGEMENTS / REFERENCES

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