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by Global Warming Waming

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1. Introduction

Global warming refers to a condition where there is a rise in global temperatures due to an increase in greenhouse gas concentration in the atmosphere (Jang & Hart, 2015). Climate change is referred to as the gradual increased climatic conditions over a long period, including the change in the precipitation pattern, increase in temperatures, and so on (Cohen, 2019). Climatic changes have multiple consequences for Canadians over the years, ranging from their well-being, livelihood, and the Canadian natural ecosystem. This paper describes the consequences of global warming and climate change in Canada, evidence of the present global warming and climate change, and methods used for climate reconstruction.

2. Consequences of global warming and climate change in Canada.

- 2.1. There is an increase in precipitation causing floods (Da Silva et al., 2018)—for example, looking at the southern Alberta flood that happened in June 2013. This is an extreme flood event that caused significant destruction of properties and infrastructure in that region and Calgary. Reports show that almost 100,000 people were displaced and an estimated \$6 billion worth of properties damaged (Cohen, 2019).
- 2.2. Global warming causes wildfires. Canada has experienced wildfire cases, some of which were catastrophic. For example, around May 2016, almost 600,000 ha in Northern Alberta was burnt by a large wildfire. This led to the evacuation of over 80,000 people living in Fort McMurray (Wang et al., 2015).
- 2.3. Global warming has led to a reduced glacier and ice caps. Canada's Arctic and alpine glaciers have continually reduced over the years. Reports show that glaciers and ice caps' melting contributes to sea level rise (Da Silva et al., 2018).
- 2.4. According to Climatologists' report, Canada's climate is likely to experience potential changes in the future. Due to an increased human population, which is anticipated to reach 15 billion by 2100, there will be an increased carbon dioxide emission. This increases greenhouse gases in the atmosphere affecting the Biodiversity in Ontario's terrestrial ecosystem in Canada (Cohen, 2019).

3. Evidence of present global warming and climate change in Canada

3.1. Northern Canada is experiencing high temperatures that have increased by 2.3°C by 2016. The warming rate is three times the global mean temperature. The rate of increase in temperature is strongest in winter (4.3°C) and weakest in summer (1.6°C).

3.2. The coastal regions of Canada are experiencing a change in the sea-level. There is a relative rise of sea-level along the Beaufort Sea coastline (Cohen, 2019). The rise of sea-level results from regional subsidence or land uplift due to the ice sheet's retreating that earlier covered the region.

3.3. There has been a decrease in snow cover in regions to the south of Canada (Elizabeth and Greg 2019). On the other hand, snow cover has increased in areas in the southwestern part of Canada.

4. Methods used for climate reconstruction.

4.1. The Canadian government is advocating for the construction of buildings that are energy efficient to reduce greenhouse gas emissions. Reports show that homes and buildings have been contributing to about 13 percent of Canada's emissions. In this case, the government supports building retrofit programs like climate action incentive fund (Elizabeth and Greg, 2019).

4.2. The government focuses on having a clean technology and innovative economy that will facilitate economic growth and protect the environment (Warren & Lemmen, 2014). Canada's government believes innovative technologies are essential in addressing climate change and having a clean global economy.

4.3. Canada has a clean and non-emitting source of power that is already estimated to be 80 percent. This makes Canada have one of the cleanest electricity systems in the world. Additionally, the government is focusing on increasing the number to 90 percent by 2030 (Elizabeth and Greg, 2019).

5. Conclusion

Climate change is an issue being addressed by all nations across the globe to have a better future. Increased carbon dioxide emissions cause global warming to the atmosphere, which affects the climate patterns. This is evident over the years due to changes in precipitation patterns, increase or decrease in rivers and lakes volumes, rise and fall of coastal levels, etc. However, nations are working together, putting measures and strategies to curb the increased global and climate change.

6. References

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