October 2021

Climate INFRO

IPCC Report -Climate change widespread, rapid, and intensifying

What is the IPCC?



- The IPCC provides objective scientific information on climate change, including the natural, political, and economic impacts and risks. They also provide possible actions to take.
- It does not do the actual research or monitor climate change, but carefully reviews published findings about climate change.



The Intergovernmental Panel on Climate Change (IPCC) is the part of the United Nations responsible for advancing knowledge on human-caused climate change. It was established in 1988 and is headquartered in Geneva, Switzerland. The IPCC has 195 member countries. "This government has a real plan to fight climate change. Experts who have done the work and know the issues agree we have a realistic and affordable strategy to hit our targets and reduce pollution."

The Honourable
Steven Guilbeault,
Minister of Environment and
Climate Change, Canada



- Thousands of scientists and other experts volunteer to review the data and put together key findings into "Assessment Reports" for policy makers and the general public.
- The IPCC is an internationally accepted authority on climate change, and its work is widely agreed upon by leading climate scientists and governments.



N Photo







"I used to say, when I was talking about climate change, that climate change is serious, certain, and soon. But this is no longer accurate. Now it is very serious, very certain, and now."

– Linda O. Mearns, Ph.D.

Senior Scientist, Research Applications Lab, National Center for Atmospheric Research, US

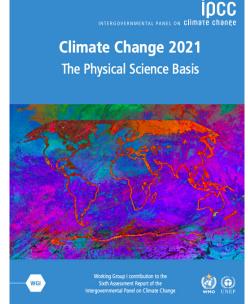
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The 6th Assessment

The most recent IPCC report, the Sixth Assessment Report, was released in August 2021.

- The report indicates that climate change is observed in every region of the planet and across the whole climate system.
- The report also provided new global warming estimates. The chances of limiting warming to close to 2° C is almost beyond reach, unless there are immediate, rapid and large-scale reductions in greenhouse gas emissions.



In just the past few decades, extreme weather events have worsened, polar ice melting, wildfire everywhere, coral reefs dying, droughts and floods.

Scientists have established how just 1° C of warming so far triggered these changes. So it's unsurprising that another half a degree, or full degree, will worsen and add to these impacts.

Key Report Findings Include:

- Heat waves, droughts, cyclones, dust storms, and heavy rain will all become increasingly common
- Arctic sea ice is vanishing, as this area of the planet warms twice as fast as the global average. This will lead to rising sea levels and cause more frequent flooding and erosion of coastal areas
- Permafrost thawing will increase, especially with less snow cover and melting glaciers. This will also lead to an increase in methane emissions
- There is a potential for tipping points – a threshold that once passed may represent major, potentially irreversible, damage to the climate system.

This report comes ahead of a major UN climate conference in Glasgow, Scotland, where nations will meet to pledge targets that will significantly reduce greenhouse gas emissions.

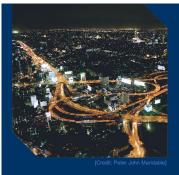
What is a Tipping Point?

A "tipping point" is where a tiny change could suddenly cause a much larger change.

Imagine a child pushing themselves off from the top of a playground slide. There is a point where it is too late for the child to stop themselves sliding down.

What is COP26?

The United Nations holds a climate change conference every year, known as Conference of the Parties (COP). This year, the United Kingdom will host the 26th COP in Glasgow, Scotland from October 31 - November 12, 2021. This conference will ensure countries make commitments to climate change, that they can then be held responsible for by other countries.



Unless there are immediate, rapid, and large-scale reductions in greenhouse gas emissions, limiting warming to 1.5°C will be beyond reach.

ÍPCC 💩 💮

What's Happening at COP26?



Over 190 world leaders are expected to participate in Scotland, along with policy makers, scientists, environmental activists, youth and climate experts. The goals of COP26 are:

- Secure global net zero by 2050 and keep 1.5 degrees within reach
- Adapt to protect communities and natural habitats

Youth Participation

#Decarbonize #Decolonize

The Centre for Global Education and their partner organizations are mobilizing 100,000 youth from around the world to expand on their awareness of climate change and to take meaningful action in their schools and local communities. This project will culminate in one representative from each participating nation presenting to leaders of the world at COP. http://decarbonize.me/

- Fund climate action by ensuring the rich countries fulfill their annual \$100 billion commitment
- Work together to deliver by fulfilling goals of the Paris Agreement

#DECARBONIZE

For virtual participation of the conference, go to: https://unfccc.int/ COP26/social-media



A Bit of HISTORY

On December 12, 2015, Canada and 194 other countries reached the **Paris Agreement**, an ambitious and balanced agreement to fight climate change. This new Agreement was to strengthen the effort to limit the global average temperature rise to well below 2°C and pursue efforts to limit the increase to 1.5°C..



COP21 in Paris, 2015

As part of this, each country was requested to outline their plans for climate action.





What is Net-Zero?

Net-zero emissions means the amount of greenhouse gas emissions being produced will be equal or less than the amount being removed from the atmosphere. In other words, the greenhouse gases will no longer be increasing.

Where to get more info?

IPCC

The 6th Assessment Report: AR6 Climate Change 2021: The Physical Science Basis https://www.ipcc.ch/report/ar6/wg1/

FAQs and Video Links: https://www.ipcc.ch/report/ar6/wg1/

Interactive Atlas: allows regional exploration of observed and projected climate data.

https://interactive-atlas.ipcc.ch/

Fact Sheet: North & Central America https://www.ipcc.ch/report/ar6/wg1/ downloads/factsheets/IPCC AR6 WGI Regional_Fact_Sheet_North_and_ Central America.pdf

Slide Show: IPCC News Conference https://www.ipcc.ch/report/ar6/wg1/ downloads/outreach/IPCC_AR6_WGI_ Press Conference Slides.pdf

News Release: Climate Change Widespread, Rapid, and Intensifying https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/

What is Canada's Role?

Canada has committed to:

- Reducing its emissions by 40-45% below 2005 levels by 2030.
- Achieving net-zero emissions by 2050.
- In 2020, the Canadian Net-Zero **Emissions Accountability Act was** created which:
- Formalizes Canada's commitment to reducing emissions.
- Will be reviewed every five years to update targets toward their goal.
- A number of Canada's provinces and cities have also made their own net-zero by 2050 commitments.

- In response to the urgent action needed, Canada has:
 - Invested over \$100 billion in clean growth.
 - Established a carbon pricing and rebate system.
 - Added regulations to phase out coal fired electricity by 2030.
- As part of COP26, Canada will colead a process to help developed countries stand by their climate commitments.
- Canada. like other countries. has committed to double their Climate Finance contributions, which is a key theme at COP26. Working with Germany, Canada will deliver on a US\$100 billion Climate Finance goal.

4.0 3.5 2.5 1.5 0.5 -0.5 -1.5 25

COP₂₆

COP26 home page https://ukcop26.org/

COP26 Explained (PDF) https://ukcop26.org/wp-content/ uploads/2021/07/COP26-Explained.pdf

UNFCCC

United Nations Framework Convention on Climate Change website: https://unfccc.int/

The Paris Agreement

https://unfccc.int/process-and-meetings/ the-paris-agreement/the-paris-agreement

Designed as educational material for 3NE by:



Environment and Climate Change C

Canada

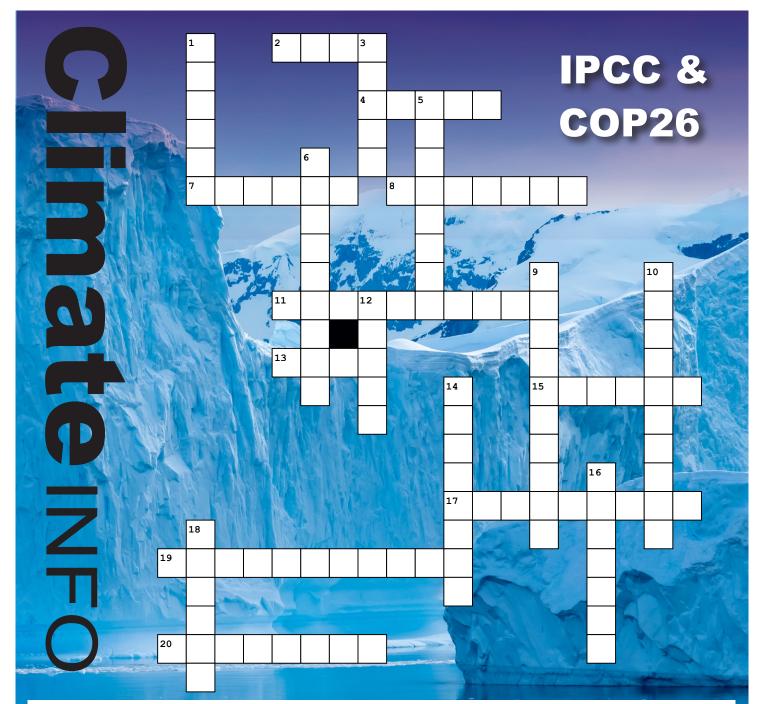
Canada's Climate Action Plan: https://www.canada.ca/en/services/ environment/weather/climatechange/ climate-plan/climate-plan-overview/ actions-healthy-environment-economy. html

Canada's International Climate Finance: Supporting Ambitious Climate Action Abroad

https://www.canada.ca/en/services/ environment/weather/climatechange/ canada-international-action/climatefinance.html

Science of Climate Change - Canada https://www.canada.ca/en/environmentclimate-change/services/climate-change/ science-research-data/science.html

Centre for Global Education http://decarbonize.me/



Across

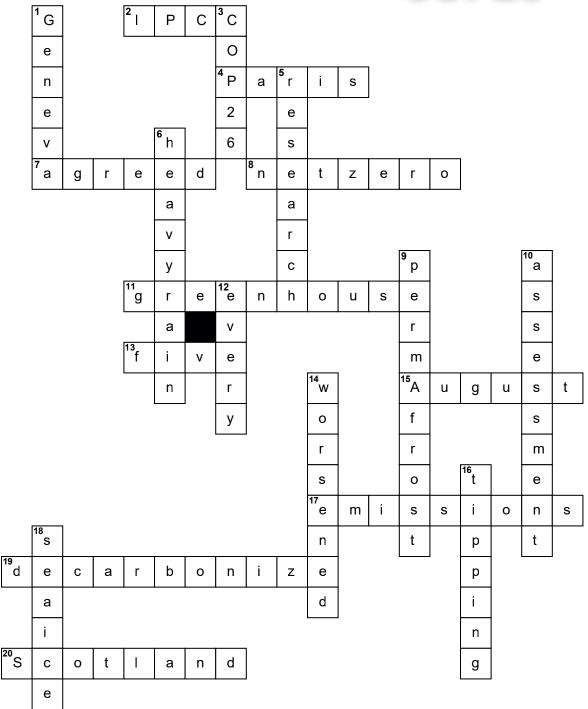
- 2. Intergovernmental Panel on Climate Change
- 4. In 2015 a major agreement was reached in this city
- 7. The IPCC's work is widely ____ upon by scientists
- 8. When emissions produced equals those removed
- 11. Immediate reductions in ____ gases are needed
- 13. Canada's Net-Zero act will be reviewed in ____ yrs
- 15. The IPCC 6th Report was released in ____ 2021.
- 17. Canada will reduce $__$ by 40-45% by 2030
- 19. A Youth participation group is called _____.me
- 20. Over 190 world leaders will meet in ____ Oct.31/21

Down

- 1. The city where IPCC has its headquarters
- 3. United Nations Climate Change Conference 2021
- 5. IPCC does not do the actual ____ but reviews it
- 6. Heat waves, droughts, cyclones , dust storms and _____ will become increasingly common
- 9. <u>thawing will increase</u>, releasing methane.
- 10. Thousands of scientists put findings into _____ reports
- 12. Climate change is observed in _____ region
- 14. Extreme weather events have ____
- 16. ____ point where a tiny change causes a large one
- 18. Arctic _____ is vanishing as the planet warms



IPCC & COP26



Quick Links to Resources

COP26

COP26 home page



COP26 Explained (PDF)



UNFCCC

United Nations Framework Convention on Climate Change website:



The Paris Agreement



Canada

Canada's Climate Action Plan:

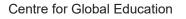


Canada's International Climate Finance: Supporting Ambitious Climate Action Abroad



Science of Climate Change - Canada









Use these QR Codes and your smart phone to gain quick access to more information.

Just turn on your camera, point it at one of the codes and click the link that appears on your screen.