

UPSC Environment Notes Emission Gap Report 2020

United Nations Environment Programme (UNEP) releases Emission Gap Report. It released the 11th edition of this report in 2020. As the name suggests, the report highlights the global greenhouse gas emissions trends. The summarized facts of the latest Emission Gap Report 2020 are provided in this article.

Note: As per the report, India is among the top four [greenhouse gas \(GHG\)](#) emitters.

The key highlights of the 2020 Emission Gap Report are useful information for the environment and ecology section of the [IAS Exam](#).

There are similar international organizations reports related to the environment. Check them below:

[Global Environment Outlook](#)

[Living Planet Report](#)

Key Highlights of Emission Gap Report 2020

Simple definition of emission gap – “The difference between where we are likely to be and where we need to be in terms of global greenhouse gas emissions”.

Emission Gap for 2030 – “Difference between global total GHG emissions from least-cost scenarios that keep global warming to 2°C, 1.8°C or 1.5°C with varying levels of likelihood and the estimated global total GHG emissions resulting from a full implementation of the NDCs.”

In a nutshell, UNEP’s Emission Gap Report 2020 mentioned that we are not on the track to bridge the emission gap. The other underlining statements are mentioned below:

1. There is a continuing rise in extreme weather events.
 - Wildfire
 - Hurricanes
 - Glacier Melting
 - Ice Melting at poles
2. Aviation and Shipping sectors have been examined as the international emissions from these two areas are not covered in the Nationally Determined Contributions (NDCs).
3. GHG concentrations in the atmosphere continued to rise in 2020 regardless of lower emissions in the same year. The reason behind lower emission is the prevalence of COVID-19 virus and social and economic disruptions that followed it.

Find the compilation of all the important [international organizations reports](#) in the linked article.

Key Highlights:

1. GHGs emissions on rise.
 - It is a third year (2019) in a row that GHG emissions have seen an increasing trend.

- The dominant factor of GHG emissions is fossil carbon dioxide (CO₂) emissions.
 - When including the more uncertain and variable Land-Use Change (LUC) emissions, global GHG emissions have grown 1.4 per cent per year since 2010 on average, with a more rapid increase of 2.6 per cent in 2019 due to a large increase in vegetation forest fires.
 - The top four emitters are:
 - China
 - US
 - EU27+UK
 - India
 - Out of the total emissions, 55 percent of it has been contributed by the top four emitters.
 - Russia, Japan and International Transport are in the top seven emitters' list.
 - G20 members account for 78 percent of emissions.
 - Organization of Economic Cooperation and Development (OECD) economies are witnessing a decline in GHG emissions while non-OECD economies are seeing the opposite.
 - Rich countries have higher consumption-based emissions (Allocation of emissions to a country where goods are purchased and consumed) than territory-based emissions. However, both types of emissions are declining at similar rates in these countries.
2. GHGs atmospheric concentrations continue to rise while CO₂ emissions could decrease
- Due to restrictions brought in the mobility sector in the wake of COVID-19, there is a decline in GHGs emissions.
 - Although CO₂ emissions will decrease in 2020, the resulting atmospheric concentrations of major GHGs (CO₂, methane (CH₄) and nitrous oxide (N₂O)) continued to increase in both 2019 and 2020. Sustained reductions in emissions to reach net-zero CO₂ are required to stabilize global warming, while achieving net-zero GHG emissions will result in a peak then decline in global warming.
3. COVID-19-led Short-term Emission Reduction
- The report mentions that COVID-19 crisis is only a short-term period where emissions are likely to decline due to various economic disruptions.
 - Unless countries incorporate strong decarbonization in their economic recovery post covid, the reduction in global emissions will not contribute significantly to emissions reductions by 2030 .
 - Nations are suggested to incorporate mitigating strategies in their NDCs and also in the climate-related policies expected in [United Nations Framework Convention on Climate Change \(UNFCCC\) COP26](#).
4. Most significant climate policy development of 2020 – Growing number of countries with net-zero GHG target
- 126 countries that account for 51 percent of global GHG emissions have net-zero goals under one of the following categories:
 - Formally adopted net-zero goals.
 - Announced net-zero goals
 - Under-consideration Net-zero goals
 - If the United States of America adopts a net-zero GHG target by 2050, as suggested in the Biden-Harris climate plan, the share would increase to 63 per cent.
 - Names of G20 Countries with net-zero emissions goals:

- France – Net-zero emissions goals are legally enshrined
 - United Kingdom – Net-zero emissions goals are legally enshrined
 - European Union – Aim to achieve net-zero emissions by 2050
 - China – Carbon neutrality by 2060
 - Japan – Zero net emissions by 2050
 - Republic of Korea – Carbon neutrality by 2050
 - Canada – Intended for net zero emissions by 2050
 - South Africa – Net zero carbon emissions by 2050
 - Argentina (also a member of UNFCCC Climate Ambition Alliance) – Net zero emissions by 2050
 - Mexico (also a member of UNFCCC Climate Ambition Alliance) – Net zero emissions by 2050
5. No G20 member has officially submitted a new or updated NDC target. Earlier, only 9 countries had formally submitted long-term low GHG emissions development strategies to UNFCCC.
5. Two steps to make significant progress in achieving Paris Agreement Goal of long-term temperature by 2030:
- Nations have to devise a long-term strategy in line with Paris Agreement
 - Nations have to bring either new targets or update the Nationally Determined Contributions (NDCs) that are consistent with net-zero emission goals.
6. Cancun Pledges over NDC Commitments
- G20 nations can overachieve their Cancun Pledge for 2020. (Uncertainty over the performance of Canada, Indonesia, Mexico and Republic of Korea)
 - Nine (including India) out of 20 G20 countries are on track to achieve their NDC commitments
 - Five G20 nations are not on track.
7. The Emission Gap in 2020 compared to 2019 is not narrowed.
8. 3 degrees celsius temperature-increase by the end of the century. It is due to the inadequacy of current NDCs.
9. Early COVID-19 fiscal rescue and recovery measures provide valuable insight for policymakers designing measures for the immediate future:
- support for zero-emissions technologies and infrastructure, for example, low-carbon and renewable energy, low-carbon transport, zero energy buildings and low-carbon industry
 - support for research and development of zero emissions technologies
 - fossil fuel subsidies through fiscal reform
 - nature-based solutions, including large-scale landscape restoration and reforestation.
10. Need for lifestyle changes with proper governance. Citizens need to actively participate to reduce personal emissions. (Foremost among these are mobility, residential and food, each of which contributes close to 20 percent of lifestyle emissions.)
11. How can governments and citizens reduce personal emissions?
- Replacing domestic short-haul flights with rail journeys
 - Providing incentives and the infrastructure necessary for cycling and car-sharing, while restricting petrol cars
 - Improving the energy efficiency of housing and renewable energy defaults from grid providers

- Ensuring the provision of low-carbon food in the public sector and developing policies to reduce food waste

12. Green Pandemic Recovery can help nations be on track.

Prelims Facts:

1. Emission Gap Report is an annual publication on global progress on climate action.
2. The aim of this report is to reflect on the trend of GHG emissions to keep a track of the Paris Agreement to keep global warming well below 2 degrees celsius and pursue 1.5 degrees celsius.

What is the Cancun Pledge?

The significant decisions taken at the UN Climate Change Conference that took place in Cancun, Mexico in 2010. They underlined emission reduction targets by 2020. The main objectives of Cancun agreements were:

1. Mitigation
2. Transparency of Actions
3. Technology
4. Finance
5. Adaptations
6. Forests
7. Capacity Building

What is the Paris Agreement?

195 nations signed the Paris Agreement in 2016. It is a UNFCCC multilateral agreement aiming to reduce and mitigate GHG emissions. Read more about the [Paris Agreement](#) in the linked article.

What are the National Determined Contributions (NDCs)?

The contributions pledged under the Paris Agreement that are to be reported by each party to UNFCCC every 5 years and are not legally-binding are NDCs. They are a tool to achieve the global goal of net zero emissions.

Read more about [Intended Nationally Determined Contributions](#) in the linked article.