

1 Introduction

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1.1 Context of the Emissions Gap Report 2020

This eleventh edition of the United Nations Environment Programme (UNEP) Emissions Gap Report has been produced in a year in which the COVID-19 crisis has dominated both the news and policymaking, causing immense suffering and economic and social disruption. The economic disruption has briefly slowed – but far from eliminated – the historic and ever-increasing burden of our activity on the Earth’s climate. This burden is manifested in the continuing rise in extreme weather events, including wildfires and hurricanes, and in the melting of glaciers and of ice at both the poles. This year, Arctic sea ice cover shrank to its second lowest extent since the beginning of modern record-keeping (National Aeronautics and Space Administration [NASA] 2020), the USA is about to break the record on climate-related weather events costing more than US\$1billion each (National Oceanic and Atmospheric Administration [NOAA] 2020) and 2020 is on course to become the warmest year on record globally (CarbonBrief 2020). The year 2020 has set new records: they will not be the last.

It is clear that global carbon dioxide (CO₂) and greenhouse gas (GHG) emissions in 2020 will experience a sizeable drop compared with 2019 levels as a result of the COVID-19 crisis. Yet, enhanced climate ambition and action remain as urgent as ever. Although 2020 GHG emissions will decline, GHG concentrations in the atmosphere continue to rise (World Meteorological Organization (WMO) 2020) and the immediate reduction in emissions caused by COVID-19 lockdown measures is assessed to have a negligible long-term impact on climate change (Forster *et al.* 2020).

How governments around the world respond to COVID-19 and post-COVID-19 recovery will be critical to achieving the goals of the Paris Agreement. The unprecedented scale of COVID-19 economic recovery measures offers an opening for a low-carbon transition that creates the structural changes required for sustained emission reductions. Seizing this opening will be essential to bridging the emissions gap.

The United Nations Secretary-General is calling on governments to use COVID-19 recovery as an opportunity

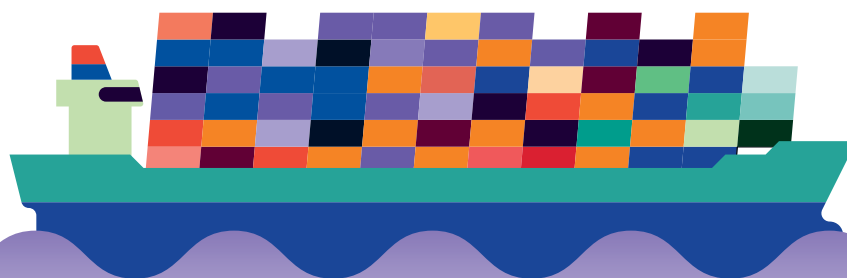
to create more sustainable, resilient and inclusive societies (United Nations 2020). Aligned with this, the United Nations Framework Convention on Climate Change (UNFCCC) has stressed that governments can integrate and specify some of their post-COVID-19 recovery plans and policies in their new or updated nationally determined contributions (NDCs) as well as in their long-term mitigation strategies – both of which countries are requested to submit this year (United Nations Framework Convention on Climate Change [UNFCCC] 2020).

The most significant and encouraging climate policy development of 2020 is the growing number of countries that have announced net-zero emissions goals around the middle of this century. These commitments are broadly consistent with the Paris Agreement temperature goal, provided they are achieved globally. The litmus test of these announcements will be the extent to which they are reflected in near-term policy action and in significantly more ambitious NDCs for the period to 2030.

1.2 Focus and approach of the report

Each year, the Emissions Gap Report provides an updated assessment of the gap between estimated future global GHG emissions if countries implement their climate mitigation pledges, and the global emission levels from least-cost pathways that are aligned with achieving the Paris Agreement goal of limiting global warming to well below 2°C and pursuing 1.5°C. This difference between where we will likely be and where we need to be is known as the ‘emissions gap’.

The reports also look at opportunities for bridging the emissions gap. This year, the report focuses on three areas that are highly relevant for our ability to bridge the gap and that have become even more pertinent in the wake of COVID-19: i) the role of COVID-19 fiscal rescue and recovery measures in the global transition to decarbonization; ii) the role and opportunities for reducing emissions from the shipping and aviation sectors, where international emissions are not covered by the NDCs; and iii) the role of lifestyle change in decarbonization.



Reflecting the unusual circumstances of 2020, this year's report deviates from its usual approach of exclusively considering consolidated data from previous years as the basis for assessment. To maximize its policy relevance, preliminary assessments of the implications of the COVID-19 pandemic and associated rescue and recovery measures are included throughout the report.

As in previous years, this Emissions Gap Report has been prepared by an international team consisting of 51 leading scientists from 35 expert institutions across 18 countries, assessing all available information, including that published in the context of the Intergovernmental Panel on Climate Change (IPCC) reports, as well as in other recent scientific studies. The assessment process has been overseen by a distinguished steering committee and has been transparent and participatory. All chapters have undergone an extensive external review process. In addition, the assessment methodology and preliminary findings were made available to the governments of the countries specifically mentioned in the report in order to provide them with the opportunity to comment on the findings.

1.3 Structure of the report

The report is organized into six chapters, including this introduction. Chapter 2 assesses the trends in global GHG emissions and G20 member progress towards their Cancun

Pledges in 2020 and their NDCs in 2030. In addition, it considers the potential implications of COVID-19 on G20 emissions projections. Chapter 3 updates the assessment of the likely emissions gap in 2030. Furthermore, the chapter provides a preliminary assessment of how COVID-19 and associated rescue and recovery measures may impact global GHG emissions in 2030 under various scenarios. The chapter then looks at the implications of the emissions gap on the feasibility of achieving the long-term temperature goal of the Paris Agreement.

Chapter 4 assesses the size and extent to which COVID-19 fiscal rescue and recovery measures to date can be said to support low-carbon or high-carbon development. It also outlines emerging lessons for governments in the pursuit of a low-carbon economic recovery.

The two final chapters of this year's report cover areas that have received limited attention in previous Emissions Gap Reports, but that receive much international attention and have been particularly affected by COVID-19. Chapter 5 looks at the trends and opportunities for decarbonizing the shipping and aviation sectors, with a particular focus on international transport. Finally, chapter 6 assesses the role and opportunities for reducing GHG emissions through lifestyle and behavioural change, paying particular attention to inequalities in per capita emissions within and across countries and the systemic changes necessary to support and induce lifestyle change.