

1 Introduction

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1.1 Context of the Emissions Gap Report 2021

This twelfth edition of the United Nations Environment Programme (UNEP) Emissions Gap Report comes during a year of constant reminders that climate change is not in the distant future. Extreme weather events around the world – including flooding, droughts, wildfires, hurricanes and heatwaves – have continuously hit the news headlines. Thousands of people have been killed or displaced and economic losses are measured in the trillions. Bearing witness to the increasingly clear signs of climate change, the Intergovernmental Panel on Climate Change (IPCC) published the first report in its Sixth Assessment cycle addressing the “Physical Science Basis” in August 2021. Dubbed a “code red for humanity” by the United Nations Secretary-General, the IPCC report documents in far greater detail and with higher certainty than previous assessments how climate change and extreme events can be attributed to the build-up of anthropogenic greenhouse gas (GHG) emissions in the atmosphere. There is a fifty-fifty chance that global warming will exceed 1.5°C in the next two decades, and unless there are immediate, rapid and large-scale reductions in GHG emissions, limiting warming to 1.5°C or even 2°C by the end of the century will be beyond reach.

Building on the new evidence from the IPCC, the twenty-sixth United Nations Climate Change Conference of the Parties (COP26) is charged with the growing urgency of accelerating global ambition and action on both mitigation and adaptation. This coincides with an important milestone in the five-year ambition-raising cycle of the Paris Agreement, whereby countries were requested to submit new or updated nationally determined contributions (NDCs) that represent a progression compared with previous NDCs before COP26. There is therefore a special focus both in the international discussions and in this year's Emissions Gap Report on the ambition level in the new and updated NDCs.

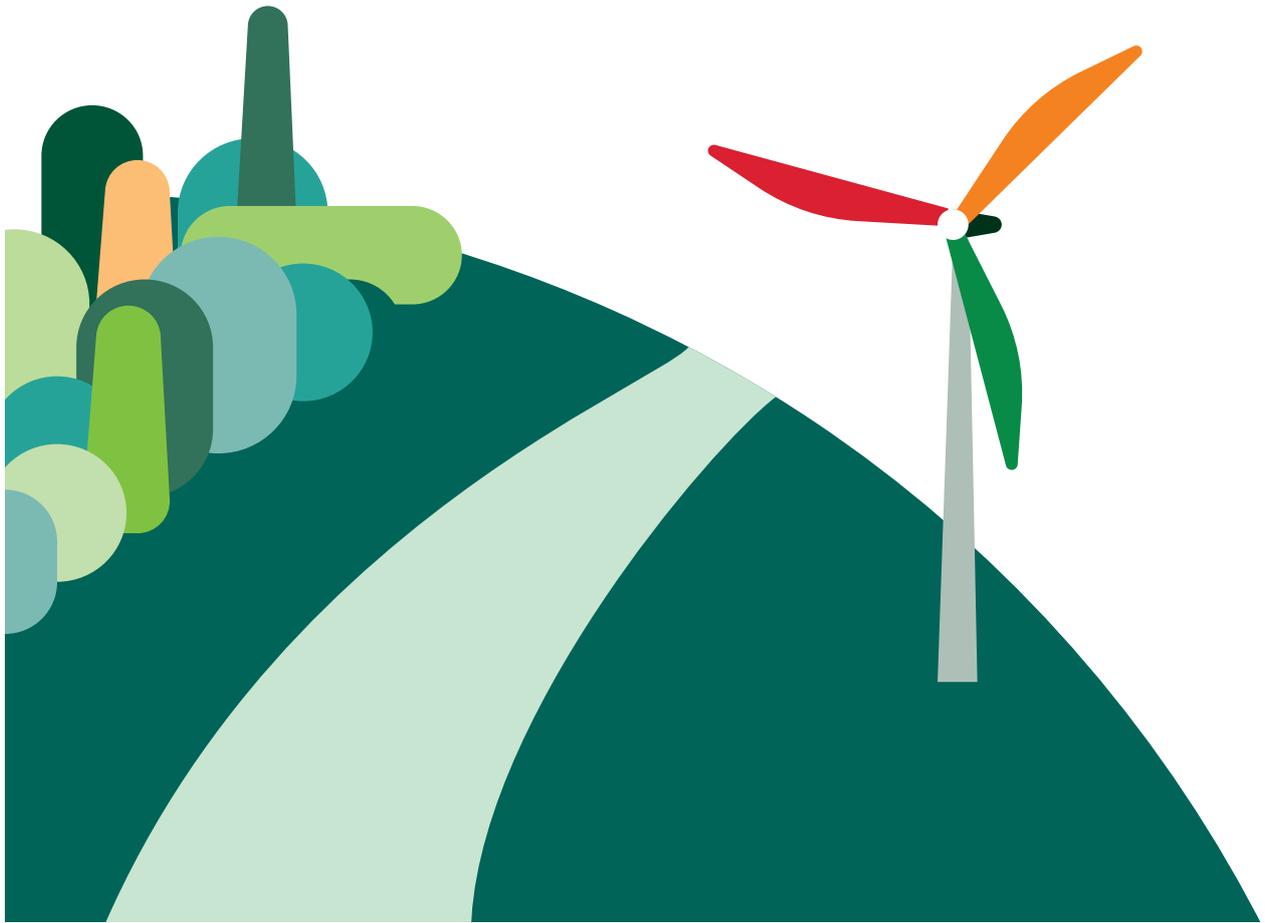
As the September 2021 version of the NDC Synthesis Report published by the United Nations Framework Convention on Climate Change (UNFCCC) illustrates, the new and updated NDCs are insufficient to achieve the temperature goal of the Paris Agreement (United Nations Framework Convention

on Climate Change 2021). This Emissions Gap Report confirms the findings of the UNFCCC report. It expands the analysis to consider new or updated NDCs and mitigation pledges that have been announced for 2030 and assesses the impacts of these on global emissions, the emissions gap and projected global warming at the end of the century. Furthermore, it provides an in-depth assessment of the net-zero pledges that an increasing number of countries are committing to, including whether 2030 plans set countries on a clear path towards their longer-term net-zero pledges.

1.2 Focus, approach and structure of the report

Each year, the Emissions Gap Report provides an updated assessment of the gap between i) estimated future global GHG emissions if countries implement their climate mitigation pledges and ii) 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 now well known as the ‘emissions gap’. This year, the new or updated NDCs as well as officially announced mitigation pledges for 2030, with a cut-off date of 30 September 2021, are included in the assessment.

One of the United Kingdom's key goals for its COP26 presidency is to secure global net zero by mid-century and keep 1.5°C within reach (United Nations and United Kingdom undated). To date, 49 countries (50 parties, including the European Union) have firmly pledged net-zero emission goals by around mid-century, and a large number of non-state actors have joined the High-Level Climate Champions in the Race To Zero campaign that aims to elevate ambition and mobilize credible climate action among cities, regions, businesses and investors. Given the increasing importance of and attention to net-zero emission pledges, the report includes a special chapter on net zero which assesses the trends in and robustness of these goals, including whether 2030 commitments set countries on a clear path towards their longer-term net-zero pledges.



The report also includes three chapters on opportunities to bridge the emissions gap that are pertinent to the current global situation and the COP negotiations. First, an updated assessment is provided on the extent to which COVID-19 fiscal recovery measures are used to accelerate a green transition. Second, the scope for reducing emissions from methane, the second largest GHG, to bridge the gap and get on track towards net zero is examined. Finally, the report looks into a key negotiation issue for COP26: reaching agreement on how to move forward with article 6 of the Paris Agreement dealing with cooperative approaches and market mechanisms. A large number of countries have included the use of market mechanisms in their NDC implementation plans and are waiting for the modalities to be agreed.

As in previous years, this 2021 Emissions Gap Report has been prepared by an international team consisting of 78 leading scientists from 44 expert institutions across 24 countries, assessing all available information, including that published in the context of the IPCC reports, as well as in other recent scientific studies. The transparent and participatory assessment process has been overseen by an experienced steering committee. All chapters have undergone external review and 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.

The report is organized into seven chapters, including this introduction. Chapter 2 assesses the trends in global GHG emissions and how they are affected by COVID-19, and provides a global and G20-member-specific overview of new, updated and announced NDCs. Chapter 3 provides an assessment of net-zero emission pledges. Chapter 4 updates the assessment of the likely emissions gap in 2030, based on new or updated NDCs as well as officially announced mitigation pledges for 2030. 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 5 assesses the extent to which COVID-19 fiscal rescue and recovery measures to date can support low-carbon or high-carbon development. It also looks at the disparities between high-income and developing countries. Chapter 6 assesses the role of methane in the NDCs and in bridging the emissions gap, and considers options for cost-effective reductions of the otherwise growing emissions of methane. Finally, chapter 7 looks at the potential role of market mechanisms in implementing NDCs and enhancing future ambitions, and discusses what is required to make the use of markets environmentally effective, transparent and credible.