



UNEP Emissions Gap Report 2024 Key Messages

Overview

As greenhouse gas emissions reach new highs and climate impacts intensify globally, nations are preparing updated Nationally Determined Contributions (NDCs) for submission in early 2025 ahead of COP30 in Brazil. The *Emissions Gap Report 2024: No more hot air...please!* finds that to avoid the present trajectory of a temperature increase far beyond 2°C over the course of this century, nations must use COP29 in Baku, Azerbaijan, as a launchpad to increase ambition and ensure the new NDCs collectively promise to almost halve greenhouse gas emissions by 2030. They must then follow up with rapid delivery of the commitments, building on actions taken now. If they do not do so, the Paris Agreement target of 1.5°C will be gone within a few years and the 2°C target will be in danger.

It remains technically possible to get on a 1.5°C pathway, with solar, wind and forests holding real promise for sweeping and fast emissions cuts. To deliver on this potential, sufficiently strong NDCs would need to be backed urgently by a whole-of-government approach, measures that maximize socioeconomic and environmental co-benefits, enhanced international collaboration that includes reform of the global financial architecture, strong private sector action and a minimum six-fold increase in mitigation investment. G20 nations, particularly the largest-emitting members, would need to do the heavy lifting.

Updated Nationally Determined Contributions (NDCs) to the Paris Agreement, set to be submitted early next year ahead of COP30 in Brazil, must collectively promise and deliver unprecedented cuts to greenhouse gas emissions by 2030 to keep 1.5°C alive.

- To get on a least-cost pathway for 1.5°C, emissions must fall 42 per cent by 2030, compared to 2019 levels. For 2°C, emissions must fall 28 per cent by 2030.
- Looking out to 2035 – the next milestone after 2030 to be included in NDC targets – emissions must fall 57 per cent for 1.5°C and 37 per cent for 2°C.
- Since greenhouse gas emissions grew 1.3 per cent year-on-year to 57.1 gigatons of carbon dioxide equivalent in 2023, the task has become harder; 7.5 per cent must be shaved off emissions every year until 2035 for 1.5°C and 4 per cent for 2°C.

- Every fraction of a degree avoided counts in terms of lives saved, economies protected, damages avoided, biodiversity conserved and the ability to rapidly bring down any temperature overshoot.

If only current NDCs are implemented and no further ambition is shown in the new pledges, the best we could expect to achieve is catastrophic global warming of up to 2.6°C over the course of the century.

- Full implementation of both unconditional and conditional NDCs – the latter those that require external support – would only reduce expected emissions in 2030 by 10 per cent, leading to predictions of up to 2.6°C of warming.
- Implementing current conditional NDCs would deliver up to 2.8°C of warming.
- Implementing only current policies would deliver up to 3.1°C of warming.
- All these scenarios would cause debilitating impacts to people, planet and economies, and necessitate future costly and large-scale removal of carbon dioxide from the atmosphere to bring down the overshoot of the Paris targets.

Despite the scale of the task, it remains technically possible to cut emissions in line with a 1.5°C pathway.

- The report shows that the emissions gap for 2030 and 2035 could be bridged at a cost of below US\$200 per ton of CO₂ equivalent.
- The potential for cuts in 2030 is 31 gigatons of CO₂ equivalent – which is around 52 per cent of global greenhouse gas emissions in 2023 – and 41 gigatons in 2035.
- Increased deployment of solar photovoltaic technologies and wind energy could deliver 27 per cent of this total emission reduction potential in 2030 and 38 per cent in 2035.
- Action on forests could deliver around 20 per cent of the potential in both years.
- Other strong options include efficiency measures, electrification and fuel switching in the buildings, transport and industry sectors.

Delivering on the mitigation potential would require immediate global mobilization on a scale and pace only ever seen following a global conflict.

- The report calls for a whole-of-government approach, focusing on measures that maximize socioeconomic and environmental co-benefits and minimize trade-offs.
- Also necessary is a minimum six-fold increase in mitigation investment – backed by reform of the global financial architecture and strong private sector action.
- Not all of the extra financing would be incremental, as investments are needed anyway to meet the growing demand for energy and other development needs.
- The estimated incremental investment for net-zero is US\$0.9-2.1 trillion per year from 2021 to 2050. For context, the global economy and financial markets are worth US\$110 trillion per year.

G20 action and leadership, particularly by the biggest economies and emitters, will be pivotal.

- G20 member states, minus the African Union, accounted for 77 per cent of emissions in 2023.
- The addition of the African Union to the G20, which more than doubles the number of countries from 44 to 99, brings total emission up to only 82 per cent – highlighting the need for differentiated responsibilities between nations.
- As G20 members are still off track to meet even current NDCs, the largest-emitting members will need to dramatically increase action and ambition now and in the new pledges.
- Stronger international support and enhanced climate finance will be essential to ensure mitigation and development goals can be realized fairly across G20 members and globally.

Updated NDCs must be well-designed, specific and transparent to meet any new targets put in place.

- NDCs must include all gases listed in the Kyoto Protocol, cover all sectors, set specific targets in relation to a base year, and be explicit about conditional and unconditional elements.
- They must detail how national plans that prioritize development and progress towards the Sustainable Development Goals are consistent with ambitious efforts to reduce emissions.
- They must provide transparency and clarity around how the submission reflects both a fair share of effort and the highest possible ambition.
- They must include detailed implementation plans that pursue options for accelerating mitigation action now and for 2035. These plans should include sectoral benchmarks, relevant mitigation options and potentials, and mechanisms for review and accountability.
- For emerging market and developing economies, NDCs should include details on the means of implementation they need, including institutional and policy change, and international support and finance required.