



Global Cooling Pledge for COP28

Recognizing that, access to sustainable cooling¹ is a key climate adaptation strategy important for reducing emissions, enabling productive work, providing protection from heat stress supporting human well-being, reducing food loss, and enhancing access to healthcare and medicines and in support of a just energy transition,

Recognizing that, without a transition to sustainable cooling, cooling as an adaptation strategy comes at a higher environmental cost, with increased greenhouse gas (GHG) emissions, that the world cannot afford and therefore, adaptation and mitigation strategies must go hand in hand;

Recognizing that, to meet the Paris Agreement under the UNFCCC goal of keeping warming well below 2°C, while pursuing efforts to limit warming to 1.5°C, significant cooling emission reductions must be achieved globally by 2030 putting us on a pathway to net-zero emissions from cooling by 2050;

Recognizing that, there is a need for a transition to safe, low-GWP refrigerants, including the implementation of Kigali Amendment to the Montreal Protocol, to prevent up to 0.5°C of warming by the end of the century, through the phase-down of high global warming potential (GWP) refrigerants, and that coordinated action to improve cooling efficiency alongside the phase-down of hydrofluorocarbons (HFCs) could double those climate benefits (WMO-UNEP 2022);

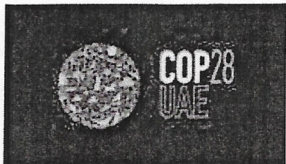
Recognizing that, heat-related deaths among vulnerable populations increased by 68% between 2000–2004 and 2017–2021, that heat exposure led to up to 5.6% of GDP losses in vulnerable countries (Lancet 2022) and that increased heat stress is projected to reduce total working hours worldwide by 2.2% and global GDP by 1.8% or US\$2.4 trillion in 2030 (ILO 2019);

Recognizing that, the lack of sustainable cold chains results in the loss of 526 million tons of food production, with associated XX GHG emissions from food loss, [detracting gains from other efforts to make food production sustainable], contributes to a significant reduction in smallholder farmers' income (UNEP-FAO 2022);

Recognizing that, improving the thermal conditions of urbanised areas is critical for the wellbeing and health of billions of people, and that cities are warming at twice the global average due to the 'heat island effect', warming as much as 4°C by 2100 with business-as-usual (UNEP 2021), and thereby further accelerating demand for cooling;

Recognizing that, space cooling accounts for 10% of global electricity consumption and that over the next three decades it will become one of the top drivers of global electricity demand in buildings and of generation capacity additions to meet peak power demand (IEA 2022);

¹ **Sustainable cooling** refers to actions that put us on a pathway consistent to net zero cooling by 2050 defined by the COP26 Climate Action Pathway as being achieved through three impact areas: 1) passive cooling strategies : widespread adoption of measures that avoid or reduce the need for mechanical cooling including reducing cooling loads, smart and human centric design and urban planning; 2) super-efficient equipment and appliances: A 'race to the top' S-curve transformation where the norm is super-efficient cooling equipment and appliances powered by zero carbon energy; and 3) Market domination of safe and low GWP refrigerants, that are consistent with pathways to limit warming to under 2 degrees Celsius, across all cooling sectors and applications.



Recognizing that the average residential air conditioning unit sold today is less than half as efficient as the best commercially available units and that to align cooling with the Net Zero Emissions by 2050 Scenario, the average efficiency rating of air conditioners sold would need to increase at least 50% by 2030 in all markets (IEA 2021);

Recognizing that, a growing number of renewables-based cooling technologies are technically viable, economically feasible and quickly deployable at scale in rural, remote and off-grid locations (IRENA 2022);

Recognizing that, the storage of thermal energy in cooling systems contributes to supply flexibility in electrical systems supporting an increasing share of variable supply renewable sources;

Recognizing that, almost 2.5 billion people facing a medium risk to health and income losses from heat do not have access to cooling, and over 1.2 billion people facing a high risk to health and income losses do not have access to cooling typically disproportionately impacting women and girls (SEforALL 2022);

Recognizing that more than 2 billion lower-middle income people in developing countries due to enter the world's 'middle classes' will soon be able to purchase the lowest priced air conditioners – locking them into a decade of outdated and inefficient equipment that can be too expensive to operate.

Recognizing that, high-level political engagement can catalyse global action at scale to accelerate access to cooling while ensuring a transition to sustainable cooling while supporting existing international initiatives that address various aspects of cooling.

For National Government Participants in the Global Cooling Pledge:

Commit to collectively increase access to sustainable cooling substantially by 2030, by protecting vulnerable populations from the impacts of extreme heat and accelerating the adoption of sustainable cooling solutions for those in need;

Commit to collectively ensure that the HFC phasedown is accompanied by an increase in the average efficiency rating of new air conditioning equipment (ACs) by at least 50% in the aggregate through to 2030 as compared to the 2021 efficiency² baseline of all ACs then in operation;

Commit to establish Minimum Energy Performance Standards (MEPS) ambition and progress in relation to U4E model regulation guidelines, the SEAD product efficiency call to action, global Best Available Technology (BAT) and other recognized benchmarks that can be used as a normalised guide of progress towards Net-Zero Emissions by 2050;

Commit to public procurement of low-global warming potential and high efficiency cooling technologies focused on the lowest life cycle cost in X% of government buildings by 2030 to prime the private sector market;

Commit to establish building energy codes or guidelines [for new buildings and existing buildings undergoing rehabilitation] that incorporate market appropriate passive cooling and energy efficiency strategies by 2030, along with mechanisms to ensure increasing stringency over time, and encourage their adoption and enforcement at the sub-national level;

² average efficiency of sold ACs.



Commit to developing and publishing a national cooling action plan, regulation, or equivalent strategy by 2026 [the 10th Anniversary of the Kigali Amendment] and to reflect actions on sustainable cooling in national development plans, climate strategies and Nationally Determined Contributions (NDCs) to the Paris Agreement and Kigali Implementation Plans under the Montreal Protocol;

Encourage an increase in the proportion of nature-based solutions for cooling in urban environments;³

Commit to maintaining up-to-date, transparent, and publicly available information on policies and commitments relevant to the Pledge with a minimum requirement to measure and report on annual in-country sales of cooling equipment including capacity, efficiency, and refrigerant data.

Commit to support existing international cooling emission reduction and cooling access initiatives, such as those of the Cool Coalition to advance global cooperation and domestic actions;

Commit to review progress towards the target of the Global Cooling Pledge on an annual basis until 2030 and have a dedicated ministerial meeting at the UNFCCC Conference of the Parties;

Encourage contributions from the private sector, development banks, financial institutions, and philanthropies to support global cooling emission reduction and increased access to sustainable cooling;

Call on other states and actors to join the Global Cooling Pledge.

Further, the National governments participants of the pledge agree to additionally implement two or more of the following commitments by 2025:

- *to complete* the ratification of the Kigali Amendment to the Montreal Protocol, if not already completed;
- *to support*, building on the framework of decisions 89/6 and 91/65 adopted by the Executive Committee of the Multilateral Fund of the Montreal Protocol (MFMP), ambitious measures and the provision of financial resources for the purpose of financing energy efficiency by the MFMP while phasing out HCFC and phasing down HFC utilization; OR to support robust action through the Montreal Protocol Multilateral Fund for early action to reduce HFC consumption and to promote improved energy efficiency for the HFC phase-down.
- *to integrate* considerations and growth in cooling demand in the energy sector through energy access planning and regulations to ensure incorporation with plans for energy system decarbonization;

³ Nature-based cooling solutions (NBS) can help cities reduce the demand for active cooling and also increase urban resilience in coping with extreme temperatures in heatwaves. Solutions include urban forests and parks, and green roofs. Nature-based urban cooling solutions have been identified as key adaptation strategies for climate change, with co-benefits that include emissions reductions, energy savings, better health outcomes, reduced urban heat effect, and enhanced water management and savings.



- *to invest* in creation, innovation and deployment of sustainable renewable energy based cooling solutions for food, health, and building value chains in rural, remote and off-grid locations to broaden the range of affordable solutions;
- *to allocate* resources to aid states and cities in their evaluation and support for a transition to sustainable cooling to increase resilience against extreme heat including through the development of Heat Action Plans;
- *to allocate* resources and/or create an enabling framework to transition the cooling market towards low GWP cooling solutions encouraging district cooling, passive cooling and other market appropriate technologies in a scalable manner;
- *to allocate* resources and/or legislative support to scale up the deployment of appropriate cold chain solutions to modernise connectivity in the food chain and mitigate food loss, in support of achieving a more sustainable and resilient food system, globally;
- *to increase* the amount of international climate financing that supports increasing access to cooling along with a transition to sustainable, cooling and cold chain;
- *to support* existing and future education and training for Refrigeration and Air Conditioning engineers and technicians to increase competences ensuring readiness to support energy efficient and more environmentally friendly cooling technologies;
- *to allocate resources* to advance holistic solutions for managing accumulated ODS and HFC banks, including end of equipment life capture, recycle and disposal programs, accelerating the shift to sustainable cooling.

For Subnational Government participants of the pledge that do not have the authority to commit to all pledge components, shall commit to at least one of the following:

- *to undertake* an inclusive, multi-stakeholder process to create and adopt a jurisdictional Heat Action Plan to identify heat risk exposure, locally relevant policies and solutions, financing and implementation pathways and performance metrics;
- *Commit to* public procurement of low-global warming potential and high efficiency cooling technologies focused on the lowest life cycle cost in X% of government buildings by 2030 to prime the private sector market;
- *to increase* or enhance the proportion of nature-based cooling solutions within built-up city surface area targeting at least 30% of designated green or blue spaces by 2030, and with demonstrable progress by 2025.

For Non-Governmental Organizations, Finance, and Private Sector Entities supporting the pledge commit:

- *To acknowledge* and publicly support the intent of the Global Cooling Pledge in its entirety;
- *To support* the actions of National and Subnational Governments in their execution of the pledge and commitments therein.