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THE RACE TO TACKLE GLOBAL WARMING

Relevant for: Environment | Topic: Environmental Degradation - GHGs, Ozone Depletion and Climate Change

The COP26 UN Climate Change Conference opening in Glasgow, Scotland, on Sunday has raised expectations, just as the COP21 conference in Paris did six years ago, that there will be determined action by 2030 on the defining challenge before humanity.

After the COVID-19 pandemic forced a postponement of the event in 2020, nearly 120 countries are now ready to engage in environmental diplomacy until November 12, when major emitters of greenhouse gases, such as China, the U.S., the EU and India, and developing countries, including small island states, will try for consensus on rules to cut emissions, mechanisms to adapt to climate impacts and compensation for nations for loss and damage.

The climate negotiations seek to raise the ambition of countries under the Paris Agreement of 2015 to cut carbon dioxide emissions, after a long spell of drift since 2015 caused by economic declines, an upsurge of nationalism, the withdrawal of the U.S. from the pact under President Donald Trump and the pandemic.

Under President Joe Biden, the U.S. returned to multilateral diplomacy and the UN Framework Convention on Climate Change (UNFCCC), giving new life to the idea that advanced nations will transfer green technologies without hard intellectual property barriers and provide the agreed \$100 billion funding for developing countries annually from 2020 to help reduce emissions. The funds will also help them adapt to extreme climate events such as intense storms, fires, droughts, floods and food deficits.

Climate impact

The impact of the climate on the frequency and intensity of these events was documented by the Intergovernmental Panel on Climate Change (IPCC) in its special report of 2018 on 1.5 degrees C warming, and the just-released assessment on the physical science behind a warming world. All the headline points in the latest report point to a narrowing window for the world to taper down emissions before the temperature rises beyond 2 degrees C.

At Glasgow, the poorer half of the world, which did not contribute to the problem but faces disastrous impacts, will press the key question of equity. Under the UNFCCC, all countries do not have the same responsibilities, given their respective levels of development. This principle of common but differentiated responsibilities guides the Paris Agreement.

India, which has pledged to cut the emissions intensity of its growth by 33-35% of GDP from 2005 levels by 2030, has declared its pre-2020 performance on this metric achieved, at 24%, while it is working to fulfil other Paris promises — raising renewable energy capacity to make up a 40% share and expanding forest cover to create a 2.5 to 3 billion tonne carbon sink.

More recently, it announced a scale-up of its renewable power plans to 450 GW by the end of the decade, and a national hydrogen policy to produce the chemical element through green methods, aiding its deployment in industrial sectors as well as transport, and aiming for export.

Science sets tempo

The tempo for the Glasgow conference has been set by scientific reports, warning of continuing extreme human pressure on the climate system. One IPCC report of August 2021 warned that

the observed increase in global surface temperature showed unprecedented warming during the 1850-2020 period compared with reconstructed temperature data over a period of 2,000 years. On the eve of the climate meet, the UN Environment Programme issued its 12th Emissions Gap Report, comparing the updated emissions reduction pledges made by countries for 2030, with what is needed to keep the rise in global temperature to 1.5 degrees C or even 2 degrees C.

That gap, between a projected emissions reduction of 7.5% for 2030 against the need for 30 to 55% cuts, and even taking into account the latest promises by countries, could lead to a rise in temperature by 2.7 degrees C by the end of the century. Moreover, G20 countries, accounting for nearly 80% of global emissions, are not on a clear course to achieving net zero (balancing out emissions) based on 2030 commitments.

The net zero concept remains contentious, because of the uncertainties surrounding long-term targets, but big countries such as China have set such a goal, while the EU as a bloc, Germany, the U.K., France, Canada and others have legal mandates.

At COP26, the road to these targets is set to become the focus of debate. Article 6 of the Paris pact provides for the establishment of rules, modalities and procedures, which will enable countries, public and private entities to reduce emissions, and which will be accounted towards national pledges. The private sector sees the potential for a market mechanism for emissions credits, while critics see scope for juggled numbers that do not cut real emissions, and lead to deception through creative accounting.

Another conference priority is to raise the ambition of high carbon countries, notably China, to phase out coal in energy production. This is a contentious issue, since coal is a reliable option for many, despite its contribution to high emissions and atmospheric pollution, and even the U.S., along with India, emphasises carbon capture technology — expensive and nascent at present — rather than a quick move to alternatives. Australia too bats for coal.

Power shortage

The International Energy Agency (IEA) predicted a "rebound" in global coal use in 2021 spurred by COVID-19 recovery, and the recent power shortages worldwide have increased attraction for coal. Solar and wind are not adequate to meet the surge.

That setback, however, has not eased up the pressure from young climate activists on countries to move away from "dirty" coal. Their disinvestment campaign is hurting, as public and private sectors pull out their money. The militant campaigners, led by the face of the youth movement, Greta Thunberg, will be heard in Glasgow.

Scientists too are disappointed with the progress. James Hansen, the former NASA researcher whose testimony to the U.S. Congress in 1988 on human-caused global warming proved greatly influential, has called COP26 a 'gas bag season' since politicians are not ready to talk about the gravity of scientific evidence.

The IPCC says in its latest report, "It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred." COP26 will be a stocktake of whether political will is strong enough to stave off disaster.

In Focus

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unusual warming during the 1850-2020 period

The gap between a projected emissions cut against the actual need could lead to a rise in temperature by 2.7°C by 2100, says a UN report

India, which has pledged to cut the emissions by 33-35% of GDP by 2030, has declared its pre-2020 performance on this metric achieved, at 24%

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