

HOW COAL, CLIMATE JUSTICE AND ZERO EMISSIONS CLASHED AT COP26

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

An elderly woman being carried to safety in Palakkad, Kerala, during the 2018 floods | Photo Credit: [K.K. MUSTAFAH](#)

The 26th United Nations Conference of Parties (COP26) ended in tears. President for COP26, Alok Sharma, a Minister of Cabinet rank in the Boris Johnson administration, choked up as he knocked the gavel to signal the end of the two-week conference in Glasgow, Scotland. Sharma, who'd extended the conference proceedings by a day, couldn't get the world to decisively commit to two things: that all countries must cut carbon dioxide emissions so that it doesn't lead to global warming rising beyond 1.5°C by 2100; and that it was time to set a date to guillotine humanity's centuries-old dependence on coal as fuel.

The COP held in Paris in 2015 is considered historic because nearly 200 countries signed a treaty that bound them to do whatever they could to keep global temperatures from rising beyond 2°C by the end of the century and "pursue all efforts" to keep it at 1.5°C. The difference in half a degree is significant.

Heatwave-hot

The Intergovernmental Panel on Climate Change (IPCC), that has for years been compiling regular updated assessments of scientific literature linking greenhouse gas emissions and climate change, released a report in 2018. Called the *Special Report on Global Warming of 1.5°C*, it summarised evidence on how a 1.5°C world would look like compared to a 2°C. The picture isn't pretty. At 1.5°C, some 350 million people in urban areas will be exposed to severe drought. At 2°C, the figure would be more than 411 million. A 2°C world would mean that Arctic ice would almost certainly melt. About 14% of the world will be exposed to extreme heat compared to 37% in a 2°C world.

'1.5°C' and '2°C' refer to temperatures averaged out over the entire globe, encompassing both oceans and land. Land heats quicker, and much more than the ocean, because the latter is vaster and can mask the amount of heat trapped in the atmosphere. So, a 2°C global rise can mean as much as a 6°C rise in some tropical regions. This is the temperature difference between 'hot' and 'heatwave-hot'. The 1.5°C and 2°C refer to the rise in global temperature compared to the years between 1850 and 1900. Since then, the globe has already heated up by 1°C. And so delegates, activists, industrialists and media flying into editions of COP at different venues annually are working to craft an agreement, and a host of subsidiary documents, to prevent that crucial, additional degree of heating.

Timing matters. The 1.5°C report also argues that because so much carbon dioxide already exists in the atmosphere, global temperatures will ineluctably rise by 1.5°C by the 2030s. In fact, this barrier was already temporarily breached in 2015-16 during a raging El Niño season that first steamed the Central Pacific and triggered knock-off effects globally. But if countries manage to substantially cut emissions, and deploy technology that is admittedly exotic (Direct Air Capture, or technology that extracts carbon dioxide from the atmosphere), or manage to rejuvenate acres of dense forest, it is possible that the earth may stay at the 1.5°C level for a few decades and then cool down, thus keeping temperatures below 1.5°C by the end of the century. This is, however, the most optimistic scenario and requires all countries to make drastic

emission cuts. So much so that all nations, collectively, ought not to be releasing more than 18 billion tonnes of carbon dioxide in 2030. Currently, the world emits around 36-40 billion tonnes every year, and so far, all nations have together pledged to make emission cuts that will still see 33 billion tonnes being emitted in 2030 (however, close to 95% of nations have not legally committed to doing so).

Middle-of-the-road forecasts currently suggest that the world can realistically only hope to keep temperatures from rising to somewhere between 2 and 3°C by the end of the century. The uncertainty of climate science is that a 3°C rise isn't necessarily just twice as bad as a 1.5°C. The oceans, land and atmosphere are all interacting with each other and past emissions along with future ones can cumulatively add up, like karma, to bring on more disasters — that we are already seeing — but at a much greater scale.

Unholy trinity

So what's the best way to do this? Simple answer: cut fossil fuel use. Which ones? And therein lies the dilemma. Coal, natural gas and oil are the unholy trinity that fuel 80% of the world's energy needs. They are responsible for the climate crisis because in fuelling power plants and transport, they emit carbon dioxide. However, all of them emit differently. Kilo for kilo, coal emits nearly twice as much carbon dioxide as natural gas and about 60% more than oil. There are also a host of partially burnt carbon particles from the combustion of coal that contribute to other forms of pollution and trigger respiratory disorders.

Thus, it seems like a no-brainer to get rid of coal as soon as possible. However, keeping in mind how central fossil fuels are in powering economic growth, it's important to see how the world's top three fossil fuel emitters — the U.S., China and India — consume them. India and China, both developing countries with a third of humanity between them, derive half their primary energy from coal. For the U.S., it is just 12%, according to 2020 figures from 'Our World in Data'. Coal constitutes 70% of India's electricity production, 60% of China's, and just 20% of the U.S.'s.

Oil is 40% of the primary source of energy in the U.S. and 30% and 19% of India's and China's, respectively. Gas is 30% of the primary energy source for the U.S. and less than 10% for India and China. The U.S. is a stand-in for the economic development trajectory of the West, having also historically built its economy on the back of coal. It started to rely on other more efficient fossil fuels, such as gas and oil — and even renewable energy sources such as wind, solar and nuclear energy — relatively later. Therefore, say India and China, it is hypocritical for the West to insist on phasing out these cheap, dependable sources of fuel that are critical to India and China's economic development and essential to provide electricity, heat, and jobs to populations that are largely poor.

These numbers are also reflected in another way. The average American individually emits 10 times more carbon dioxide from fossil fuel use than an Indian, and about three times as much as a Chinese. The U.S. and several countries have already peaked on emissions; that is, every year, they are emitting fewer tonnes of carbon dioxide than before and yet it will take them until 2050 to go down to zero. How legitimate is it then to ask the much more populous developing countries to peak sooner and hit zero around the same time? In principle, a massive shift in developing countries towards renewable energy sources could aid this transition, but this requires a complete reimagining of the energy infrastructure. The Industrial Age heralded the building of infrastructure to move fossil fuel around. Dismantling it overnight would be debilitating for the developing world, is the argument.

Peaked emissions

India, by virtue of its long coastline and tropical climate, must also bear the brunt of warming, with hotter oceans already fuelling intense cyclones and unexpectedly prolonged spells of rain. In light of this, it is only fair that rather than ask developing countries to quickly slash emissions, the U.S. and developed countries — many of which have already peaked emissions and are prosperous enough to shift to more expensive renewable energy sources — take on far more drastic cuts expeditiously than what they have committed to. “This would be in keeping with principles of climate justice and equity, principles that are already in the United Nations Framework Convention on Climate Change [the guiding document governing all COP meetings],” environment minister Bhupender Yadav said in Glasgow. This also chimes in with demands by India and a much broader group of African countries and island nations that are almost certain to be deluged by rising seas and in need of compensation for damages and funds for adaptation.

Given that shifting from fossil fuel before 2050 is near-impossible, shouldn't there be more emphasis and money to prepare for a world where disasters are inevitable, they ask. As an analogy, it's impossible to predict the exact hour of a massive earthquake but it's perfectly possible to know how to build a house to withstand one and estimate its cost. A 2°C rise in global temperature would be a “death sentence” for island and coastal communities, as Prime Minister of Barbados, Mia Mottley, said at COP26. “We do not want that dreaded death sentence, and we have come here today to say, ‘try harder,’” she said. Her suggestion was a \$25 trillion global push towards adaptation and mitigation. Vaibhav Chaturvedi, a climate-economist at the Council on Energy, Environment and Water, said that it wasn't really the size of such a push that mattered, but that it required a complete overhaul of the banking system. “The trillions of dollars would just be added to a country's overall debt, however this would mean new ways of valuing assets and those can't be done overnight.”

Prior to COP26, Sharma, U.S. Senator John Kerry, and prominent leaders of the European Union made multiple trips to several countries, including India, to coax them to sign on to net zero by 2050; or slash emissions such that there was no carbon released, in balance, by mid-century. This was the best shot at a 1.5°C world. That, however, didn't happen. The attempt to mark time on coal, in the final version of the Glasgow agreement, read that countries would ‘phase down’ but not ‘phase out’ coal. The COP collectively accepted that the Perfect ought not to be the enemy of the Good, and thus COP26 ended the way it did. In optimism, but also in tears.

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