

AGENDA 2: COAL

FUEL OF COMFORT

Coal has fuelled developed nations' prosperity; developing nations still need it for economic growth

The fuel accounts for 34% of the world's electricity production in 2020

Its share in electricity mix should reduce to almost 0% by 2050 for the world to stay on the 1.5°C path

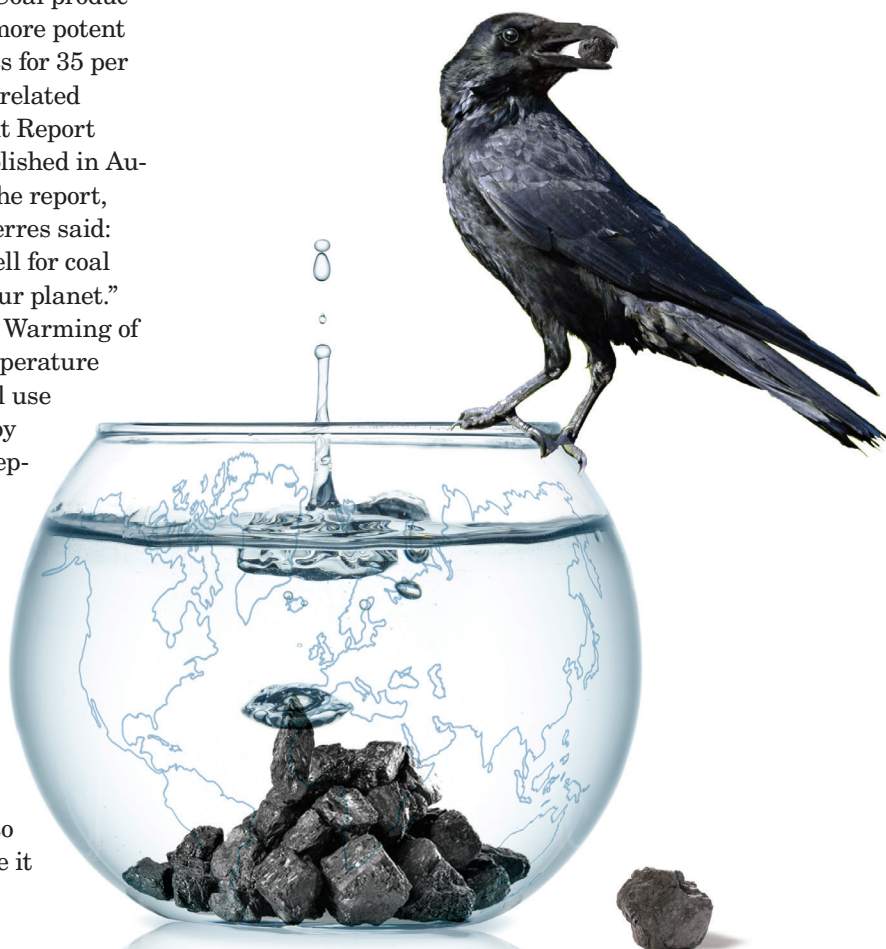
THE HOTTEST and most contentious issue that is not on the formal table of negotiations but is on the public-political radar is the phasing out of coal—not just in the developed world but also in the world where energy is still scarce and coal is the cheaper and preferred option over new renewables. There is no question that coal is bad for climate.

Among fossil fuels, coal has the highest contribution to carbon dioxide (CO₂) emissions. Of the 36.44 gigatonnes (Gt) of CO₂ emitted from the burning of fossil fuels in 2019, almost 40 per cent came from coal-fired power plants and industry (see 'Fossil dependent', p32). Coal production also releases methane (CH₄), a more potent greenhouse gas than CO₂; it accounts for 35 per cent of CH₄ emitted by all fossil fuel-related sources, says IPCC's Sixth Assessment Report (AR6), the first part of which was published in August 2021. Following the release of the report, UN Secretary General Antonio Guterres said: "This report must sound a death knell for coal and fossil fuels before they destroy our planet."

IPCC's 2018 special report "Global Warming of 1.5°C" (SR15) states that to limit temperature rise to below the threshold level, coal use for power generation needs to peak by 2020. Its use should then reduce steeply in all 1.5°C-consistent pathways and its share in electricity mix should reduce to close to 0 per cent by 2050 (with 66 per cent reduction by 2030). The report also provides a region-wise schedule. OECD countries (Organisation for Economic Co-operation and Development) and the former Soviet Union countries should be the first ones to phase out coal, and they need to be so by 2031. Latin America should phase it

out by 2032, West Asia and Africa by 2034, and non-OECD Asia by 2037.

No doubt that coal—black gold of yesterday—has taken a hit. According to the AR6 report, fossil CO₂ emissions have slowed down in the past decade. CO₂ emissions from coal use grew at 4.8 per cent per year in the 2000s but slowed to 0.4 per cent per year in the 2010s. The global pipeline of proposed coal power plants has collapsed by 76 per cent since the Paris Agreement in 2015, and 1,175 GW of planned coal-fired power projects have been cancelled in this period, said analytics group E3G in September 2021.



The countries occupying the majority of the world's remaining coal pipeline are China, India, Vietnam, Indonesia, Turkey and Bangladesh—predominately Asian countries. Chinese President Xi Jinping announced at the UN General Assembly in September 2021 that China will no longer build coal-fired power projects abroad. He did not however say anything about the coal power plants in his country. China alone contributed 50 per cent of the world's CO₂ emissions from coal in 2019, and runs over half of the world's operating fleet, which is still growing.

Other major consumers of coal are Japan, South Africa, Russia and South Korea. None of them have a target date to phase out coal. Within the EU-27, Germany has the largest coal fleet—its phase-out target is 2038, with added effort to advance the date to 2030.

Despite the progress, coal still accounts for 34 per cent of the world's power production in 2020. The 2021 Production Gap Report by the UN Environment Programme (UNEP) warns that production plans and projections by governments would lead to around 240 per cent more use of coal in 2030 than the levels consistent with limiting warming to 1.5°C (see 'Borrowed time' on p23).

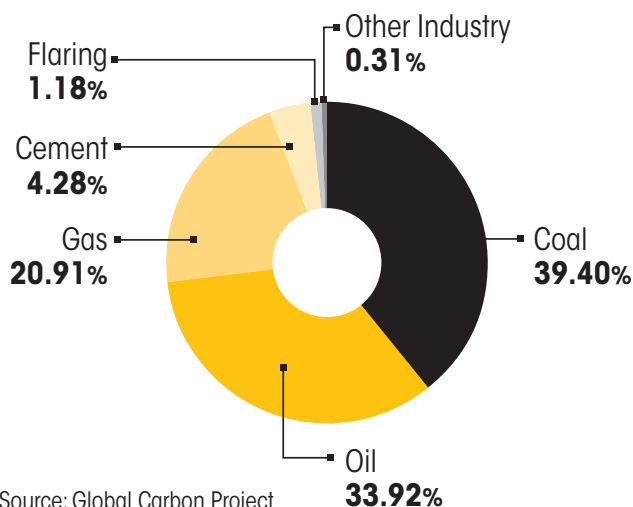
EMPTY GRANDSTANDING

Unabated coal use fuelled the industrialisation of now-developed nations and enabled their path to prosperity. Till 1970, the EU, US and Russia were the largest consumers of coal. In subsequent decades, they reduced their dependence on it due to the availability of abundant, cheaper natural gas. Developing nations, however, continued to rely on coal to fulfil their economic needs. As a result, today Asia Pacific is the highest consumer of coal. Within the region, China, now a global superpower and developed nation, uses the lion's share; in 2020, it accounted for 68 per cent of the 33,604 terawatt-hours (TWh) of coal power generated in the region.

Coal will be a key point of discussion at the 2021 UN climate change conference (COP26) in Glasgow, Scotland. Developed countries such as the US and UK have the loudest voices in the chorus against coal. US Special Presidential Envoy for Climate John Kerry attempted to remind economies like India and China about the perils of relying on coal during his diplomatic tour in

FOSSIL DEPENDENT

Coal, oil and gas accounted for over 90 per cent of the world's CO₂ emissions in 2019



early 2021. A key focus of his trip was “supporting India in mitigating its fossil energy use”, a US embassy spokesperson said. This is not misplaced, considering that India still gets over 70 per cent of its energy from coal. But the US itself is not free of coal, let alone other fossil fuels. While it has drastically reduced the use of coal since the early 2000s due to a boom in shale gas, its coal consumption in 2020 was about 2,556 TWh, compared to India's 4,871 TWh. Thus India does use twice as much coal but with a population four times larger than the US.

In August 2021, UK Prime Minister Boris Johnson said, “We know what must be done to limit global warming—consign coal to history and shift to clean energy sources, protect nature and provide climate finance for countries on the frontline”. But the UK's energy mix is still heavily dependent on oil and gas—natural gas is not a “clean energy source”, regardless of what is said about its potential as a “bridge fuel” towards renewables. Even as Johnson's government prepares to host COP26, UK, has turned its coal-fired power plants back on because of record high nature gas prices.

So, there is still a long way to go before the world can meet to discuss climate crisis and the light bulbs are not powered by coal.