

Public-private decarbonisation



As we mark the 52nd Earth Day, we must recognise that achieving net-zero carbon dioxide emissions by 2050 will require significant investment to finance the necessary economic and social transitions. McKinsey estimates that this will take \$9.2tn of annual global investment over the next 30 years – an increase of \$3.5tn per year from what is spent today on clean, renewable energy.

Most of these investments will come from the private sector, which is already leading the charge. The value of assets under management with net-zero commitments is now \$57tn. The 450 members of the Glasgow Financial Alliance for Net Zero, representing more than \$130tn in assets, have pledged to align their portfolios with the Paris climate agreement's 1.5° Celsius warming target. The First Movers Coalition (whose founding members include companies like Amazon, Apple, Boeing, Trane, and Volvo) has pledged to create demand for early-stage clean technologies in "hard-to-abate" sectors like steel, cement, and aviation. In the United States alone, private investment in clean-energy assets reached a record \$105

billion in 2021, 11% higher than in 2020 and up 70% over the previous five years.

Moreover, last fall, the International Financial Reporting Standards Foundation created a new International Sustainability Standards Board to develop industry-specific climate disclosure guidelines that will build on reporting standards developed by the Sustainability Accounting Standards Board. By the end of 2021, 258 institutional investors, representing \$76tn in assets, had adopted the SASB's voluntary standards. And, in a significant policy move, the US Securities and Exchange Commission recently proposed new rules that would require public companies to disclose information about their carbon emissions and their plans for addressing climate-related real asset and transition risks.

As these examples suggest, the net-zero challenge cannot be solved by private actors alone. Public-private co-operation and co-ordination will be critical to deploying private capital at the necessary speed and scale. The public sector – from international organisations like the International Monetary Fund and the International Bank for Reconstruction and Development to national, state, and municipal governments – must shape incentives and issue regulations to fuel the necessary private investment in clean-energy projects and infrastructure.

In the US, public-private collaboration has already yielded some clean-energy commercial success stories – most notably Tesla, which was created with the help of a US Department of Energy loan. Government-furnished funding for research and development, loans, and tax incentives have accelerated the growth of the electric-vehicle industry and supported a remarkable reduction in the costs of solar and wind energy over the past 15 years.

Publicly funded and directed innovation has a long history of success in the US. In California, standards set by the California Air Resources Board led to the widespread adoption of the catalytic converter, reducing tailpipe emissions in the state by 90% between the mid-1960s and the early 1980s. The

technology then became a standard part of all motor vehicles sold in the US, because automakers needed to comply with the regulations set first by California (and then by the newly formed Environmental Protection Agency).

Owing to the size of the California market, the fuel-efficiency standards it sets continue to be adopted by major car manufacturers. And within the state, private capital is now being mobilised through public initiatives like the Self-Generation Incentive Program, which provides rebates to organisations that install onsite energy-storage technologies, and through investment tax credits for solar and storage.

As William H Janeway notes in a recent Project Syndicate commentary, the explosion of venture capital in the information-technology and health industries over the past half-century occurred only after the government had invested billions of dollars in upstream R&D and advance-purchase commitments for new products and services. Historically, alternative-energy and decarbonisation technologies have received nowhere near the support provided by the US Department of Defense and the National Institutes of Health for information-technology and biomedical innovations. Increased government support for R&D of climate technologies would accelerate venture capital investment, which has lately gathered momentum.

Policymakers and business leaders should take advantage of this moment to supercharge public-private partnerships for climate-change adaptation and mitigation. The new \$1tn Bipartisan Infrastructure Deal allocates \$62bn to the DOE to accelerate the developing and scaling up of clean-energy technologies through R&D support, demonstration projects, an expansion of the DOE loan program, and targeted tax credits. These are major first steps. The \$555bn of climate provisions in the Build Back Better bill would provide additional de-risking incentives to unlock the private investment required for the net-zero transition.

Although Russia's war in Ukraine has forced the US to look for ways to increase fossil-fuel production in the short run, it

has also provided a wake-up call. Domestic clean-energy production will be key not just to mitigating climate change but also to energy security over the long run. The climate policies in the Build Back Better legislation would accelerate progress toward both of these goals.

But regardless of what happens at the federal level, states and cities can follow California's example and implement bold climate policies of their own. California has pledged \$37bn over the next six years – more than most national governments – to combat climate change, and has introduced its own new loan program to encourage innovation in clean-energy technologies.

This is a unique and critical moment for the private sector. It must step up and deploy its capital, building on public-policy catalysts to drive innovation and investment for a sustainable future. – Project Syndicate

lLaura Tyson, a former chair of the President's Council of Economic Advisers during the Clinton administration, is a professor at the Haas School of Business at the University of California, Berkeley, and a member of the Board of Advisers at Angeleno Group.

lDaniel Weiss, Co-Founder and Managing Partner of Angeleno Group, is Co-Chair of the UCLA Institute of Environment and Sustainability Advisory Board and serves on the board of the World Resources Institute.

**Russia-Ukraine war could
delay Europe's**

decarbonization plans for a decade



Russia's invasion of Ukraine could force Europe to delay key decarbonization efforts for up to a decade, a prominent regional energy expert has warned in Greece.

"They don't have many choices left," said Roudi Baroudi, CEO of Doha-based Energy and Environment Holding, an independent consultancy. "Unless some European countries pull out all the stops, much of the continent could soon be looking at crippling shortages, prohibitively high prices, or both."

Now that Europe is moving to reduce imports of Russian oil and gas, he explained, some of the measures expected to reduce carbon emissions may have to be put off "for eight, nine, maybe 10 years," as would planned shutdowns of nuclear generating stations.

"The European Union will need to provide the necessary permissions in some cases, plus financing in others," he said. "Eight to 10 nuclear plants and as many as 30 coal stations

slated for decommissioning will have to remain online to keep up with electricity demand, and several projects required to replace Russian gas will need to be accelerated with additional funding and/or guarantees.”

If and when gas stops flowing through pipelines from Russia, Baroudi told the 7th Delphi Economic Forum last week, “it cannot be replaced by simply ordering more liquefied natural gas from Qatar, the US, and/or other producers. Europe doesn’t have enough receiving facilities to re-gasify such huge amounts, which is why efforts to expand capacity in Germany and the Netherlands are so urgent.”

Coordinated releases of strategic oil reserves by the US and other countries are helping to contain upward pressure on crude and other energy prices, he said, but reasonable levels “cannot be maintained unless more supply makes it to market and that means oil producers –primarily OPEC but others as well – have to start pumping more.”

On yet another front, “Spain has both spare LNG receiving capacity and an undersea pipeline for imports of gas from North Africa – but very little of that can reach the rest of Europe unless and until a new pipeline connects the Iberian Peninsula to the rest of Europe via France,” said Baroudi, who has been advising companies and governments on energy policy for decades. “Paris has recently voiced new openness to that idea, but the EU can and should do more to facilitate it. It should also do more to establish an agreed route for another pipeline to carry gas from the Eastern Mediterranean to Greece and/or Turkey.”

Baroudi also argued that the EU would be wise to ensure adequate capital flows into renewables such as wind and solar. “We might have to retain fossil fuels longer than we had planned, but that’s no reason to stop funding a cleaner future,” he said. “In fact it’s a reason to move as quickly as possible.”

“The whole situation is very sad,” he added. “Ever since the

Paris Agreements of 2015, and especially since the Glasgow climate summit last year, Europe had been on the right track to be ready for a decarbonized economy. But now those plans are being pushed temporarily to the back burner. Apart from the lives being lost in the fighting, the energy and economic implications will mean severe hardships across the continent, especially for lower-income people. And much of the cause is due to the fact that Europe had delays to diversify its sources of supply. Now it finds itself scrambling to prevent an economic disaster.”

Russia-Ukraine War Could Delay Europe's Decarbonization Plans for a Decade “The Whole Situation is Very Sad” – Energy Expert



8 April 2022

Roudi Baroudi

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decade, a prominent regional energy expert warned on Friday.

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“The whole situation is very sad,” he added. “Ever since the Paris Agreements of 2015, and especially since the Glasgow climate summit last year, Europe had been on the right track to be ready for a decarbonized economy. But now those plans are temporarily being pushed to the back burner. Apart from the lives being lost in the fighting, the energy and economic implications will mean severe hardships across the continent and even beyond, especially for lower-income people, who are the most vulnerable as rising energy prices cause the cost of food to spike as well. So there will be hunger, too. And much of the cause is due to repeated delays in the diversification of Europe’s sources of supply. Now it finds itself scrambling to prevent an economic disaster.”

'Qatar, US recognise urgency climate change challenge'



Doha

The State of Qatar and the United States of America recognise the urgency of the challenge posed by climate change and the importance of accelerating global efforts on all aspects of the climate change agenda.

Qatar and the US also agree on the need to provide energy security and tackle the climate crisis together in light of current events and on the road to COP27 in Sharm el Sheikh. Rapidly reducing methane emissions is the most effective strategy to limit global warming in the near term and keep 1.5 degrees Celsius within reach.

Qatar's endorsement of the Global Methane Pledge provides critical momentum to global efforts to urgently reduce methane emissions. There are now 111 country endorsements of the Global Methane Pledge, representing 70% of the global economy and nearly half of global anthropogenic methane emissions.

Countries endorsing the Global Methane Pledge commit to take national-level, voluntary actions to support the collective pledge target of 30% reduction in anthropogenic methane emissions by 2030 from 2020 levels.

Qatar is a global leader in tackling methane emissions as it has achieved example-setting progress reducing methane intensity in the energy sector over the past decade. Qatar has an impressive track record of actions and commitments to monitor, report, verify, and reduce methane, including through reducing flaring and methane emissions in the energy sector.

QatarEnergy was the first national oil company in the Middle East to sign the Methane Guiding Principles, which support voluntary corporate efforts to reduce methane emissions across the natural gas supply chain.

QatarEnergy is also an active member of the Global Gas Flaring Reduction Partnership (GGFR) with a firm commitment to end routine flaring by 2030 and has joined the second phase of the Oil and Gas Methane Partnership (OGMP 2.0), which enables systematic and credible reporting on oil and gas methane emissions.

The Global Methane Pledge builds on Qatar's status as a founding member of the Net-Zero Producers Forum, and its ongoing strong performance, and provides an exciting new platform for Qatar and the US to deepen cooperation on methane reduction efforts, including with third countries.

UN climate report reignites global fight for compensation



With this week's UN climate science report laying bare the staggering economic costs and losses already faced from climate change, an inevitable question arises: who should pay? Within UN climate negotiations, "loss and damage" refers to the costs countries are incurring from climate-related impacts and disasters – costs that disproportionately hit the world's poor and vulnerable who did least to cause global warming. Drawing on more than 34,000 references from the latest scientific papers, the report released on Monday by the UN Intergovernmental Panel on Climate Change (IPCC) confirmed that economic sectors from agriculture and fishing to tourism were already being damaged.

Extreme heat has fuelled crop losses. Rising seas have turbo-charged cyclones that have razed homes and infrastructure, slashing economic growth.

And as the bills mount up, poorer countries are left with even less to spend on health, education and infrastructure – compounding suffering.

"It's an unending situation," said Anjal Prakash, a lead IPCC author and research director at the Indian School of Business. The report is likely to intensify a years-long political fight over funding to pay for climate-linked losses, ahead of the next UN climate summit, COP27, in Egypt in November.

Vulnerable countries for years have sought funding to help them shoulder these costs. So far, it hasn't arrived, and rich nations have resisted steps that could legally assign liability or lead to compensation.

The mention of "loss and damage" in the 2015 Paris Agreement came with the caveat that it "does not involve or provide a basis for any liability or compensation".

Last November at the COP26 climate summit in Glasgow, poor countries called for a special "loss and damage" fund to be established, but the United States and other rich nations resisted. The delegates agreed to set up a UN body to help countries address loss and damage, and to continue discussions towards making "arrangements" for funding.

But there is no clarity on where the money would come from.

"We can't just create more talk shops when people are dying," said Harjeet Singh, senior adviser at Climate Action Network. He said COP27 needed to establish the funding facility that developing countries, including China, had called for at COP26.

Singh and other campaigners said the IPCC report – which has been approved by nearly 200 governments – could intensify pressure on the world's most powerful nations.

"It will help us to say that science is clear, the impacts are clearer now. So you are accountable for this, and you have to pay for this," said Nushrat Chowdhury, a policy advisor at NGO Christian Aid.

The report's discussion of climate losses is bolstered by recent improvements in "attribution science", which allows scientists to confirm when climate change caused or worsened a specific extreme weather event.

Still, putting a number on the resulting losses remains contentious. For example, can climate-linked losses from a weather event be separated from losses caused by poor disaster planning? Can costs be counted for losses outside our economic systems, such as when nature is degraded or a community burial site is destroyed?

"We are still debating that in the scientific community," said

another IPCC lead author Emily Boyd, a professor at Sweden's Lund University.

As climate disaster costs mount and UN negotiations remain stuck, some are considering other options.

"Liability and compensation have other avenues to be taken forward, which are courts," said Saleemul Huq, an adviser to the Climate Vulnerable Forum group of 55 countries.

Sophie Marjanac, lawyer at environmental law firm ClientEarth, said the IPCC report "will generally support litigation" to address climate change.

The legal avenue faces other obstacles, however.

Last year a federal appeals court rejected New York City's attempt to use state law to hold five oil companies liable to help compensate harm caused by global warming. The court said the regulation of greenhouse gas emissions should instead be addressed under federal law and international treaties.

"Challenges in climate change litigation are related to the law, not to do with the science," Marjanac said. "The science has been clear, very clear for years."

Global airlines on the flight path to carbon neutral aviation



Air transport's commitment to tackling its environmental challenges has not diminished despite the Covid-19 crisis that has decimated the global aviation industry. On the contrary, many airlines have pledged further action by targeting net-zero emissions; by purchasing sustainable aviation fuel (SAF); retiring aged aircraft, such as the iconic Boeing 747; and investing in the latest generation of fuel-efficient planes, including the Boeing 737 MAX and Airbus A350.

The development and deployment of sustainable aviation fuel (SAF) is the biggest area of opportunity for long-term reductions in aviation emissions, according to IATA, the global body of airlines.

SAF has the capability to reduce emissions 80% on a "like-for-like" basis with Jet A-1 fuel.

Elevating the production capacity for SAF is therefore a priority for airlines. Current levels are too low, at around 0.02% of global demand, to significantly lessen emissions or to generate the economies of scale necessary to reduce costs to competitive levels. But production is beginning to increase dramatically.

In 2021, IATA estimates the production and use of between 100mn and 120mn litres of SAF – an increase of more than 50% on 2020.

SAF facilities commissioned some three to four years ago are now coming online, IATA noted. An example is the Fulcrum Sierra Biofuel plant in Reno, Nevada, in the United States, which converts solid municipal waste into SAF.

Numerous additional SAF production facilities will come online over the next four years, such that by 2025 approximately 5bn litres of SAF could be available. That, IATA says, will meet around 2% of global demand.

By 2030, projections are for SAF availability to increase to cover at least 5% of demand globally. Meeting and exceeding projections for SAF cannot be the responsibility of SAF producers and the aviation industry alone.

Governments need to set in place supportive policy frameworks, industry experts say.

The global air transport industry recently took a momentous decision to achieve net-zero carbon emissions by 2050 and ensure that flying is sustainable.

To achieve that, cost-competitive sustainable aviation fuels (SAF) should fuel the majority of aviation's global emissions mitigation in 2050.

The industry has set out the pathway to meet its 2050 goal using a mixture of new technology, efficient operations, and improved infrastructure.

The target of reducing net CO₂ by half is feasible through the aggressive deployment of SAF.

Other proposed options include the accelerated development of small, zero-emissions aircraft for short-haul operations from 2035 and the use of offsets in the interim.

These and other measures could also make it possible for the industry to meet an even more ambitious goal of net-zero carbon emissions by 2050.

It is estimated that (under the industry's trend setting initiative CORSIA or Carbon Offsetting and Reduction Scheme for International Aviation – a global carbon offsetting scheme) aviation will have to offset 2.6bn tonnes of CO₂ between 2021 and 2035.

Obviously, the aviation industry has pinned its hopes on

sustainable aviation fuels, which it believes will help reduce airlines' global emissions and industrial carbon footprint.

It is proven that SAF can cut CO2 lifecycle emissions up to 80% compared with conventional jet fuel. It uses sustainable fuel sources, which do not compete with food or water, or damage biodiversity.

Rather than being refined from petroleum, SAF is produced from sustainable resources such as waste oils from a biological origin, agri-residues, or non-fossil carbon dioxide (CO2).

Sustainable aviation fuels are currently certified by regulators for up to 50% use in commercial flights.

SAF has been around since 2008. And more than 300,000 flights have taken to the skies using SAF since 2016, according to the International Air Transport Association. More than 45 airlines now have experience with SAF.

These flights have used it blended with regular aviation – without the need for any modification of engines or aircraft – and production continues to grow.

The amount of SAF used by commercial aircraft rose 65% between 2019 and 2020, despite the devastating financial impact of Covid-19 on airlines.

IATA Director General Willie Walsh says governments must be active partners in achieving net zero by 2050. As with all other successful energy transitions, government policies have set the course and blazed a trail towards success.

“The costs and investment risks are too high otherwise. The focus must be on reducing carbon,” Walsh insists.

India solar park sparks

desire for school



By Roli Srivastava/Bhadla

The teenage girls of Bhadla, near one of the world's largest solar parks, store their books in tattered briefcases and their dreams in the essays they write between household chores.

Their remote pastoral community lost the land their animals grazed on until about a decade ago to the solar power plant in the northwestern state of Rajasthan – as well as the opportunity to work at the park due to a lack of education and skills.

Once resentful, these days Bhadla's young women say they want to get jobs at the solar facility, reflecting emerging aspirations as India expands its renewable power capacity amid a global shift to clean energy.

"I could work in the solar park if I was educated – I could manage files in the office or do their accounts," said Hira Bano, 18, who finished tenth grade two years ago.

"I have to study or I will be stuck in household work all my life," said Bano, taking her books out of a briefcase gathering dust since the only village school shut more than

two years ago.

Bhadla is home to one of the 52 solar parks India had approved across 14 states as of last year, in a drive to wean itself off planet-heating coal and meet a renewable energy goal of 500 gigawatts by 2030.

Sunny Rajasthan is a preferred state for building large new solar installations as it has available barren desert land that is sparsely populated, said state officials.

At 2,300 megawatts, Bhadla has the world's largest solar farm capacity – and more parks are in the offing in Rajasthan, according to officials at the state-run Rajasthan Renewable Energy Corporation Limited (RRECL).

That is creating opportunities in a region with previously few jobs due to its extreme natural conditions and lack of water, said RRECL chairman and managing director Subodh Agarwal.

Nonetheless, Bhadla locals – pastoralists who for generations kept animals on state land they treated as their own – feel left out of the development frenzy in their backyard.

“We have lost land and livestock, so it is only education that can give us a livelihood,” said village elder Mohamed Sujawal Mehr.

“Now big companies surround us, but only a few of our men got jobs there,” he said, noting that even a security guard position requires tenth-grade schooling. “How can they hire us if we can't read or write?”

Bhadla's school was once an unused village accessory, as education was not seen as a priority, until the arrival of the solar park infused new life into it.

The park's biggest operator, Saurya Urja, a joint venture of the state and infrastructure firm IL&FS, started sending two teachers to the school to hold regular classes.

One of them, Andaram Meghwal, said that when he first came to the village in 2017, the children climbed to the tops of the trees they were so afraid.

“We got students (to come in) from nearby towns to give them exposure to the world outside,” he said. “We shared stories of women achievers, the challenges they overcame.”

Bano – who had previously spent her time grazing cattle, working on the farm and fetching firewood – fell in love with science, school games and the idea of pursuing a career.

Girls were more inspired to study than boys as they had lost their main activity of grazing animals, while men could find work at the solar park, Meghwal said.

This was between 2015 and 2020, when 900,000 blue solar panels were erected on 12,000 acres, 5,500 jobs were created, and eateries and tea shops opened along a new highway.

But as the park neared completion, jobs for unqualified workers began to shrink. The plant has created about 1,100 long-term jobs to operate and maintain it over 25 years – but locals lack the technical skills needed, said Saurya Urja officials.

Sarthak Shukla, a sustainability policy consultant, said clean energy provides fewer direct jobs than thermal coal power, which employs 800 to 900 people for a 1GW plant compared with 25 to 30 at a similar-sized solar park.

In Bhadla, Ayub Khan Chooda, 35, is among those who have benefited, crediting his contract to wash 400 solar panels daily to his three tractors – which pull small water tankers along the rows – despite having studied only up to first grade.

Dadda Khatoon, 32, was also happy when her husband returned from Dubai, after six years of milking and grazing camels, and got a security guard job at the solar park for Rs8,000 (\$106.30) a month.

“He is happy, healthy and we are also able to save some money,” said Khatoon, sitting with village women in the winter sun. “But I don’t seem to have a role anymore apart from cooking and feeding my family. I think I had more respect then.”

With no land left to graze their animals, Bhadla residents sold their livestock whose fodder, a bitter yellow fruit called “tumba”, now lies uneaten on the vine between the solar panels.

Women from this conservative community no longer venture out,

fearing the busy highway and “the new people from cities”. Local health workers said hypertension and diabetes have become quite common owing to the new sedentary lifestyles. Shukla said that with a better understanding of the social and cultural impacts and the right policies, the solar sector could offer opportunities for Indian women, including training and other incentives such as health and education programmes. Globally, women make up 32% of the renewable energy workforce compared with 22% in the oil and gas industry, according to the International Renewable Energy Agency.

Local elder Mehr loves to recall the celebrations two years ago when three girls, including Bano, passed their tenth grade, the first to do so in this village of 250 households. “We banged plates, clapped,” he said.

But their school, which had about 100 students, shut down soon after when a disgruntled teacher submitted a report showing zero attendance – a claim disputed by villagers.

The solar firm also stopped supporting classes and shifted to a broader community focus running mobile health and veterinary clinics, according to Saurya Urja CEO Keshav Prasad.

He told the Thomson Reuters Foundation that the company backed the villagers’ demand to reopen the school, pointing to rising demand for education across villages near the solar park.

Manphool Singh, the education official overseeing Bhadla school, said he had received the requests and a government decision was pending.

“We are trying our best to open it so children can study again,” he said.

Meanwhile, the girls cook, clean and stitch together colourful pieces of cloth to make rugs for their dowries.

Drawing water from a well, Asma Khatoon, 15, said her only desire was for the school to reopen so she could sit her tenth-grade exam.

In a short Hindi essay, she wrote: “This village has too many restrictions... I want to study, become a working woman.” – Thomson Reuters Foundation

IMF's misstep on climate finance



The International Monetary Fund seems determined to dilute one of the best examples of global co-operation in response to the economic disruptions induced by the Covid-19 pandemic and climate change. It must change course now, before it is too late.

The IMF's allocation of \$650bn in special drawing rights (SDRs, the Fund's reserve asset) in August was long encouraged and widely welcomed. Given the IMF's tight rules, it was clear from the start that the vast majority of SDRs would go to countries that did not need them. As a result, G7 leaders pledged to re-channel upwards of \$100bn of their allocations to "countries most in need of ... pandemic [support to] stabilise their economies, and mount a green and global recovery ... aligned with shared development and climate goals." While these moves seem small compared to the \$17tn that rich countries have spent to support their economies during the pandemic, they were nonetheless significant. In October, just two months after the allocation, the G20 backed a plan by the IMF and the World Bank to develop and implement a Resilience and Sustainability Trust, which would allow wealthy countries to channel their allotments to low- and middle-income countries vulnerable to economic shocks. Because the RST could be used to address risks related to climate change, it would

fill a glaring gap in international finance. The IMF announced that it would have a proposal ready for its 2022 spring meetings.

But will it be enough?

Extreme weather events like floods and hurricanes can trigger financial instability in vulnerable countries as they wipe out capital stock and sources of foreign exchange. Likewise, countries dependent on fossil-fuel exports face fiscal uncertainty as demand for oil and gas decreases to meet climate goals. In both cases, spillover effects can negatively affect trade. Countries confronting such conditions must undertake a structural transformation of their economies. But many low- and middle-income countries lack access to the cost-effective, flexible financing they need.

A well-designed RST would make the IMF criteria for resource allocation and country eligibility more adaptable. Unfortunately, five design flaws in the IMF's approach would render the planned RST ineffective for most climate-vulnerable countries.

The first flaw concerns eligibility. IMF programmes discriminate on the basis of income, but climate change does not. While the G20 explicitly called for the establishment of an RST covering low-income and climate-vulnerable middle-income countries, the IMF has adopted a narrow interpretation according to which middle-income countries would be eligible only if they do not exceed a certain income threshold.

But traditional measures of income are a poor criterion for determining eligibility. The IMF must adjust its thinking to actual circumstances and ensure that eligibility is based on climate vulnerability. It should not be controversial to integrate into the criteria simple measures such as susceptibility to physical climate risks like floods, droughts, and hurricanes, or economic factors like the share of fossil-fuel exports in total foreign-exchange earnings.

Second, there is a problem with the terms and accessibility of the funds. Developing countries lack the fiscal space to mobilise domestic resources to address the structural changes

their economies need. Many also lack access to external resources on reasonable borrowing terms. But the IMF is proposing that RST users be charged the SDR interest rate (currently five basis points and on the rise) plus a margin of up to 100 basis points. These rates are not very different from what the Fund currently charges middle-income countries. More problematic is the access limits, which would be 100% of quota, or less than the SDR equivalent of \$1bn. These guidelines would do little to address the financing needs of all but the smallest countries.

The third flaw is the IMF's insistence on conditionality. The Fund sees the RST as a top-up scheme for existing programmes. This is deeply troubling. According to the IMF's own research, its existing lending facilities are stigmatised, owing to their high levels of conditionality and low levels of performance with respect to economic recovery and other social outcomes. The RST was supposed to be a new instrument that recognises and channels resources to the countries that are most vulnerable to climate change. But what the IMF plans is repackaged business as usual.

Climate-vulnerable countries have not applied for IMF support even during the pandemic, when the Fund has experienced the largest use of its facilities. Adding a small top-up at the same price and level of conditionality essentially will lock up much-needed financing for climate resilience.

The fourth flaw is that even though the IMF is only now devising a climate-change strategy, it would head the RST. Multilateral and regional development banks are also prescribed SDR institutions, and they have a longer view and a stronger track record on climate policy. They need to be part of the RST's governance.

Lastly, there is the question of scale. IMF Managing Director Kristalina Georgieva has said the RST would be funded with around \$30bn initially and then scaled up to \$50bn. While the RST alone cannot be expected to substitute finance needed to address the intensifying effects of climate change, the needs assessment released by the Standing Committee on Finance of

the United Nations Framework Convention on Climate Change put the figure at \$6tn, and other estimates are significantly higher. At the recent UN Climate Change Conference (COP26), Barbados Prime Minister Mia Amor Mottley, whose country is among the world's most vulnerable, proposed an annual increase in SDRs of \$500bn for 20 years to finance resilience and sustainability.

The IMF's shareholders and stakeholders must reconsider the RST's design. To succeed, it must include all climate-vulnerable developing countries, regardless of income level. It must provide low-cost financing that does not undermine members' debt sustainability and is not linked to pre-existing IMF programmes with onerous conditionalities. It must be governed by key stakeholders in development-finance institutions. And it must scale appropriately over time.

The IMF must make the necessary adjustments to its proposal for the RST. If it cannot, creditor countries should refrain from capitalising it. – Project Syndicate

- *The authors are members of the Task Force on Climate, Development and the International Monetary Fund.*

The West's wasted crisis



The silver lining in the gloomy cloud of the pandemic was the opportunity it gave the West to mend its ways. During 2020, rays of light shone through. The European Union was forced to

contemplate a fiscal union. Then, it helped remove Donald Trump from the White House. And a global Green New Deal suddenly appeared less far-fetched. Then 2021 came along and drew the blackout curtains.

Recently, in its financial stability review, the European Central Bank issued an angst-ridden warning: Europe is facing a self-perpetuating debt-fueled real estate bubble. What makes the report noteworthy is that the ECB knows who is causing the bubble: the ECB itself, through its policy of quantitative easing (QE) – a polite term for creating money on behalf of financiers. It is akin to your doctors alerting you that the medicine they have prescribed may be killing you.

The scariest part is that it is not the ECB's fault. The official excuse for QE is that once interest rates had fallen below zero, there was no other way to counter the deflation menacing Europe. But the hidden purpose of QE was to roll over the unsustainable debt of large loss-making corporations and, even more so, of key eurozone member states (like Italy).

Once Europe's political leaders chose, at the beginning of the euro crisis a decade ago, to remain in denial about massive unsustainable debts, they were bound to throw this hot potato into the central bank's lap. Ever since, the ECB has pursued a strategy best described as perpetual bankruptcy concealment.

Weeks after the pandemic hit, French President Emmanuel Macron and eight other eurozone heads of government called for debt restructuring via a proper eurobond. In essence, they proposed that, given the pandemic's appetite for new debt, a sizeable chunk of the mounting burden that our states cannot bear (unassisted by the ECB) be shifted onto the broader, debt-free, shoulders of the EU. Not only would this be a first step toward political union and increased pan-European investment, but it would also liberate the ECB from having to roll over a mountain of debt that EU member states can never repay.

Alas, it was not to be. German Chancellor Angela Merkel summarily killed the idea, offering instead a Recovery and Resilience Facility, which is a terrible substitute. Not only is it macroeconomically insignificant; it also makes the

prospect of a federal Europe even less appealing to poorer Dutch and German voters (by indebting them so that the oligarchs of Italy and Greece can receive large grants). And, despite an element of common borrowing, the recovery fund is designed to do nothing to restructure the unpayable debts that the ECB has been rolling over and over – and which the pandemic has multiplied.

So, the ECB's exercise in perpetual bankruptcy concealment continues, despite its functionaries' twin fears: being held to account for the dangerous debt-fueled bubble they are inflating, and losing their official rationale for QE as inflation stabilises above their formal target.

The scale of the opportunity Europe has wasted became obvious at the recent United Nations Climate Change Conference (COP26) in Glasgow. How could EU leaders lecture the rest of the world on renewable energy when rich Germany is building lignite-fueled power stations, France is doubling down on nuclear energy, and every other EU member state saddled with unpayable debts is left to its own devices to deal with the green transition?

The pandemic gave Europe an opening to devise a credible plan for a well-funded Green Energy Union. With a eurobond in place, and thus liberated from the purgatory of perpetual bankruptcy concealment, the ECB could be backing only the bonds that the European Investment Bank issues to fund a Green Energy Union. So, yes, Europe blew its opportunity to lead the world by example away from its addiction to fossil fuels.

We Europeans were not alone, of course. As US President Joe Biden was landing in Glasgow, the usual corrupt congressional politics back home were uncoupling his already much-shrunk green agenda from a very brown infrastructure bill, placing climate change on the back burner. While the United States, unlike the eurozone, at least has a Treasury Department that works in tandem with its central bank to keep debts sustainable, it, too, has missed a magnificent opportunity to invest heavily in green energy and the high-quality jobs implied by the transition from fossil fuels. How can the West

expect to persuade the rest of the world to embrace ambitious climate commitments when, after two years of waxing lyrical about the green transition, Biden and the Europeans arrived in Glasgow virtually empty-handed? As 2021 winds down, Western governments, having wasted their chance to do something about the clear and present climate emergency, are choosing to focus on exaggerated worries. One is inflation. While the acceleration in price growth must be checked, the widespread comparisons with the stagflation of the 1970s are ludicrous. Back then, inflation was essential for a US actively blowing up the Bretton Woods system in order to maintain the dollar's "exorbitant privilege." Today, inflation is not functional to American hegemony; rather, it is a side effect of the US economy's reliance on the financialisation process that imploded in 2008.

The West's other constructed panic is China. Initiated by former US President Donald Trump, and zealously perpetuated by Biden, the emerging new cold war has an unacknowledged purpose: to enable Wall Street and Big Tech to take over China's finance and technology sectors. Terrified by China's advances, like a functioning central bank digital currency and a macroeconomic stance that is vastly more sophisticated than their own, the US and the EU are opting for an aggressive stance that is a mindless threat to peace and to the global co-operation needed to stabilise our planet's climate. A year that began hopefully is ending grimly. Western political elites, unable (and perhaps unwilling) to turn a deadly crisis into a life-preserving opportunity, have only themselves to blame. – Project Syndicate

? Yanis Varoufakis, a former finance minister of Greece, is leader of the MeRA25 party and Professor of Economics at the University of Athens.

The case against green central banking



The fact that central banks could use their limited policy tools to pursue climate targets does not mean that they should. There are far more effective climate measures available to fiscal policymakers and regulators, and central bankers already have enough on their plates.

NEW YORK – One way or another, central banks' behavior will have to change with the climate. But it should evolve only because climate change will create new constraints and drive new forms of public and private economic activity. Central banks' primary function should not change, nor should they adopt "green" targets that could undermine the pursuit of their traditional objectives: financial stability and price stability (which in the United States is a dual mandate of price stability and maximum employment).

Climate change will be a defining global issue for decades to come, because we are still a very long way from ushering in a low-carbon, climate-resilient world. Three features of our

greenhouse-gas (GHG) emissions will impede the appropriate response. First, the benefits (cheap energy) are enjoyed in the present while the costs (global warming) are incurred in the future. Second, the benefits are “local” (they accrue to the GHG emitter) while the costs are global – a classic externality. Third, the most efficient methods of limiting GHG emissions impose disproportionate burdens on developing countries, while the task of compensating poor countries remains politically fraught.

The most efficient way to address climate-change externalities is through targeted fiscal and regulatory measures. Pigouvian taxes or tradable quotas would create the right incentives for reducing GHG emissions. Carbon taxes, as advocated by William D. Nordhaus of Yale University, must become the global norm (though it is difficult to envisage a global carbon tax working without a significant transfer of wealth from developed to developing countries). Rules and regulations targeting energy use and emissions can complement green taxes and quotas, and public spending can support research and development in the green technologies that we will need.

What does not belong in the mix is a green mandate for central banks. To be sure, legal mandates can change, and central banks have a well-established tradition of exceeding them. The European Central Bank’s financial-stability mandate is secondary to – “without prejudice to” – its price-stability mandate. This did not prevent it from acting decisively and quite effectively during the global financial crisis, the eurozone sovereign debt crisis, and the COVID-19 crisis, even when this meant overriding the price-stability target in 2021 and likely also in 2022. Moreover, Article Three of the Treaty on European Union explicitly provides for “a high level of protection and improvement of the quality of the environment,” so it is easy to see how the ECB’s financial-stability and monetary instruments *could* be used to target climate change.

But that does not mean they should be used in this fashion.

The standard monetary-policy instruments (one or more policy interest rates, the size and composition of the central bank's balance sheet, forward guidance, and yield curve control) are typically used to target price stability or the dual mandate. Judging by the results, there is no spare capacity in the monetary-policy arsenal.

These monetary-policy instruments impact financial stability as well, and not always in desirable ways. In addition, capital and liquidity requirements underpin micro- and macroprudential stability; and central banks can impose additional conditions on the size and composition of regulated entities' balance sheets. As the lender and market maker of last resort, the central bank can choose its eligible counterparties, the instruments accepted as collateral or bought outright, and the terms and conditions on which it lends or makes outright purchases.

There is no doubt that climate change affects a central bank's price-stability objective, including through current and anticipated changes in aggregate demand and supply, energy prices, and other channels. Climate change also could significantly alter the transmission of monetary policy, and thus will have to become an integral part of the models that guide central banks in pursuit of their primary objectives.

Green issues also affect financial stability in major ways. Extreme weather events can damage assets held by financial institutions and their counterparties. Climate-mitigation and adaptation efforts can depress the value of assets, potentially leaving many "stranded" or worthless. A central bank's financial-stability mandate requires it to recognize and respond appropriately to the foreseeable effects that climate change will have on asset valuations and on the liquidity and solvency of all systemically important financial entities and their counterparties in the real economy.

But anticipating and responding appropriately to these risks

now and in the future does not mean that higher capital or liquidity requirements should be imposed on “brown” loans, bonds, and other financial instruments. Financial-stability risks and global-warming risks are not perfectly correlated. Moreover, there are no redundant financial-stability policy instruments, and capital and liquidity requirements have a clear comparative advantage in pursuing financial-stability objectives, just as carbon taxes and emissions-trading systems have a clear comparative advantage in pursuing and achieving “green” objectives.

The shocks and disruptions caused by climate change will complicate central banks’ pursuit of their price-stability and financial-stability mandates. The last thing they need is to feel pressure to load additional objectives on their limited instruments. Just as it makes no sense to use carbon taxes or emissions-trading schemes to target financial stability, it makes no sense to use capital and liquidity requirements to address global warming. The appropriate tools to address climate change – fiscal and regulatory – are well-known and technically feasible. What is missing is the foresight, logic, and moral courage to deploy them.