# بارودي: مصلحة لبنان في استكمال المفاوضات بموقف موحّد

أكد الخبير الدولي في مجال الطاقة رودي بارودي أن "لا يزال هناك أخذ وردّ في مسألة ترسيم الحدود البحرية مع إسرائيل، ومصلحة لبنان تكمن في الاتفاق الداخلي واستكمال المفاوضات بموقف موحّد". واعتبر في حديث لـ"صوت كل لبنان" 93.3 أن "الموقف اللبناني مرتاح ولدينا مصلحة بأن تنتهي الأمور في أقرب وقت"، لافتاً إلى أن الأجواء إيجابية ووصلنا إلى نهاية الشوط لنبدأ مرحلة الاستكشاف".

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# Cheaper, changing, crucial: the rise of solar power

AFP/Paris

Generating power from sunlight bouncing off the ground, working at night, even helping to grow strawberries: solar panel technology is evolving fast as costs plummet for a key segment of the world's energy transition.

The International Energy Agency says solar will have to scale up significantly this decade to meet the Paris climate target of limiting temperature rises to 1.5 degrees Celsius above pre-industrial levels.

The good news is that costs have fallen dramatically.

In a report on solutions earlier this year, the Intergovernmental Panel on Climate Change said solar unit costs had dropped 85 percent between 2010 and 2019, while wind fell 55%.

"There's some claim that it's the cheapest way humans have ever been able to make electricity at scale," said Gregory Nemet, a professor at the University of Wisconsin-Madison and a lead author on that report.

Experts hope the high fossil fuel prices and fears over energy security caused by Russia's invasion of Ukraine will accelerate the uptake of renewables.

Momentum gathered pace last Sunday with the ambitious US

climate bill, which earmarks $370bn in efforts to cut greenhouse gas emissions by 40% by 2030.
An analysis by experts at Princeton University estimates the bill could see five times the rate of solar additions in 2025 as there were in 2020.
Nemet said solar alone could plausibly make up half of the world's electricity system by mid-century, although he cautioned against looking for "silver bullets".
"I think there really is big potential," he told AFP.

**Rapid changes**

The "photovoltaic effect" – the process by which solar cells convert sunlight to electrical energy – was first discovered in 1839 by the French physicist Edmond Becquerel.
After decades of innovations, silicon-based solar cells started to be developed in the United States in the 1950s, with the world's first solar-powered satellite launched in 1958.
The IPCC said of all energy technologies, small-scale ones like solar and batteries have so far proved quicker to improve and be adopted than bulkier options like nuclear.
Today, almost all of the panels glimmering on rooftops and spreading across vast fields are made in China using silicon semiconductors.
But the technology is changing quickly.
In a recent report, the IEA said these new solar cells have proven to be one-fifth more efficient in converting light to energy than standard modules installed just four or five years ago.
There are also a host of new materials and hybrid cells that experts predict could supercharge efficiency.
These include cheap, efficient and lightweight "thin film" technologies, like those using perovskites that can be printed from inks.
Experts say they raise the prospect of dramatically expanding where solar energy can be harvested – if they can be made durable enough to withstand a couple of decades of use.

Recent research has raised hopes that it could be possible.
In one study, published in the journal Science in April, scientists added metal-containing materials to perovskite cells, making them more stable with efficiency near traditional silicon models.
Other research mixes materials for different purposes.
One study in Nature used “tandem” models, with perovskite semiconductors to absorb near-infrared light on the solar spectrum, while an organic carbon-based material absorbed ultraviolet and visible parts of the light.
And what happens after sunset?
Researchers from Stanford said this year they had produced a solar cell that could harvest energy overnight, using heat leaking from Earth back into space.
“I think that there’s a lot of creativity in this industry,” said Ron Schoff, who heads the Electric Power Research Institute’s Renewable Energy and Fleet Enabling Technologies research.

**Location, location**

Generating more energy from each panel will become increasingly crucial as solar power is rolled out at greater scale, raising concerns about land use and harm to ecosystems.
Schoff said one efficiency-boosting design that is becoming more popular for large-scale projects is “bifacial” solar.
These double-sided units absorb energy not just directly from the sun’s rays, but also from light reflected off the ground beneath.
Other solutions involve using the same space for multiple purposes – like semi-transparent solar panels used as a protective roof for strawberry plants or other crops.
India pioneered the use of solar panels over canals a decade ago, reducing evaporation as they generate power.
Scientists in California have said that if the drought-prone US state shaded its canals, it could save around 63bn gallons.
Construction on a pilot project is due to begin this year.

**All shapes, sizes**

Experts say solar will be among a mix of energy options, with different technologies more suitable for different places.

Schoff said ultimately those energy grids with more than 25% solar and wind need ways to store energy – with batteries or large-scale facilities using things like pumped water or compressed air.

Consumers can also play their part, said Nemet, by shifting more of their energy use to daytime periods, or even hosting their own solar networks in an Airbnb-style approach.

He said the modular nature of solar means it can be rolled out in developing countries with sparse access to traditional grids.

“You could have solar on something as small as a watch and something as big as the biggest power plants in the world,” he said.

“I think that’s what’s making people excited about it.” – Reuters

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# Coal giants are making mega profits as climate crisis grips the world

The globe is in the grips of a climate crisis as temperatures soar and rivers run dry, and yet it’s never been a better time to make money by digging up coal.

The energy-market shockwaves from Russia’s invasion of Ukraine mean the world is only getting more dependent on the most-polluting fuel. And as demand expands and prices surge to all-time highs, that means blockbuster profits for the biggest coal producers.

Commodities giant Glencore Plc reported core earnings from its coal unit surged almost 900% to $8.9 billion in the first half — more than Starbucks Corp. or Nike Inc. made in an entire year. No. 1 producer Coal India Ltd.’s profit nearly tripled, also to a record, while the Chinese companies that produce more than half the world’s coal saw first-half earnings more than double to a combined $80 billion.

The massive profits are yielding big pay days for investors. But they will make it even harder for the world to kick the habit of burning coal for fuel, as producers work to squeeze out extra tons and boost investment in new mines. If more coal is mined and burned, that would make the likelihood of keeping global warming to less than 1.5 degrees Celsius even

more remote.

It’s a remarkable turnaround for an industry that spent years mired in an existential crisis as the world tries to shift to cleaner fuels to slow global warming. Banks have been pledging to end financing, companies divested mines and power plants, and last November world leaders came close to a deal to eventually end its use.

Ironically, those efforts have helped fuel coal producers’ success, as a lack of investment has constrained supply. And demand is higher than ever as Europe tries to wean itself off Russian imports by importing more seaborne coal and liquefied natural gas, leaving less fuel for other nations to fight over. Prices at Australia’s Newcastle port, the Asian benchmark, surged to a record in July.

The impact on profits for the coal miners has been stunning and investors are now cashing in. Glencore’s bumper earnings allowed the company to increase returns to shareholders by another $4.5 billion this year, with the promise of more to come.

Gautam Adani, Asia’s richest person, capitalized on a rush in India to secure import cargoes amid a squeeze on local supply. Revenue generated by his Adani Enterprises Ltd. jumped more than 200% in the three months to June 30, propelled by higher coal prices.

US producers are also reaping bumper profits, and the biggest miners Arch Resources Inc. and Peabody Energy Corp. say demand is so strong at European power plants that some customers are buying the high-quality fuel typically used to make steel to generate electricity instead.

The wild profits threaten to become a political lightning rod as a handful of coal companies cash in while consumers pay the price. Electricity costs in Europe are at record highs and people in developing nations are suffering daily blackouts

because their utilities can’t afford to import fuel. Earlier this month, United Nations Secretary-General Antonio Guterres lashed out at energy companies, saying their profits were immoral and calling for windfall taxes.

Coal’s advocates say the fuel remains the best way to provide cheap and reliable baseload power, especially in developing countries. Despite the huge renewable rollout, burning coal remains the world’s favorite way to make power, accounting for 35% of all electricity.

While western producers cash in on the record prices — with companies such as Glencore committed to running mines to closure over the next 30 years — top coal consumers India and China still have growth on the agenda.

The Chinese government has tasked its industry with boosting production capacity by 300 million tons this year, and the nation’s top state-owned producer said it would boost development investment by more than half on the back of record profits.

Coal India is also likely to pour a large chunk of its earnings back into developing new mines, under government pressure to do more to keep pace with demand from power plants and heavy industry.

China and India worked together at a UN conference in Glasgow last year to water down language in a global climate statement to call for a “phase down” of coal use instead of a “phase out.”

At the time, few would have predicted just how expensive the fuel would become. Just a year ago, the biggest international mining companies — excluding Glencore — were in a full retreat from coal, deciding the paltry returns were not worth the increasing pressure from investors and climate activists.

When Anglo American Plc spun off its coal business and handed

it over to existing shareholders, one short seller, Boatman Capital, said the new business was worth nothing. Instead the stock — known as Thungela Resources Ltd. — skyrocketed, gaining more than 1,000% since its June 2021 listing, with first-half earnings per share up about 20-fold.

Glencore itself snapped up a Colombian mine from former partners Anglo and BHP Group. The nature of the deal, and rising coal prices, meant Glencore essentially got the mine for free by the end of last year. In the first six months of this year, it made $2 billion in profit from that one mine, more than double its entire coal businesses earnings in the same period last year.

The earnings look set to keep rolling in, as analysts and coal executives say the market will remain tight.

“As we stand today, we don’t see this energy crisis going going away for some time,” Glencore Chief Executive Officer Gary Nagle said.

*— With assistance by David Stringer, and Will Wade*

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# Russian gas cuts will not kill German economy

By Daniel Gros/Brussels

Much of the conventional wisdom about Europe's current natural-gas crisis – triggered by reduced deliveries from Russia – rests on two assumptions: that the German economy depends on cheap Russian gas, and that this bet has gone spectacularly wrong. But while German industry is strong, and the country imports a lot of natural gas from Russia, a closer inspection of the numbers and economics involved does not support the prevailing narrative.

For starters, natural gas does not play a large enough role to drive an industrial economy. In 2019, gas imports via pipeline cost Germany $30 billion, representing only 0.75% of its GDP, and the overall value of the country's gas consumption was below 2% of GDP. These modest ratios are similar across industrialised economies and suggest that cheap gas imports are highly unlikely to be a major growth factor. Moreover, even though gas consumption has stagnated in Germany and most of Western Europe over the past two decades, the economy grew, albeit slowly.

The argument that cheap Russian gas might have favoured Germany more than other countries also is not backed up by the numbers. In 2019, Germany accounted for only about 2.3% of

global natural-gas consumption, but 4.5% of world GDP. Germany's gas intensity per unit of GDP is thus about one-half of the global average, much lower than that of the United States and many other industrialised countries, including Japan and South Korea.

European economies tend to be thriftier in their energy use than the rest of the world. But even within Europe, Germany performs well, with lower gas consumption per unit of GDP than other large European economies, such as Italy and Spain. This is surprising since these two Mediterranean countries have much less need for heating in winter (and air conditioning in summer requires an order of magnitude less power than heating). Only France, with its large nuclear-power sector, is less dependent on gas.

A similar picture emerges from related metrics, such as the value of energy imports as a percentage of GDP, or gas usage for industrial purposes as a share of industrial value added. All these indicators show that the German economy uses energy less intensively than most others.

The idea that German industry gained an advantage from access to cheap Russian gas ignores the reality that there is a European gas market with, up to now, only small differences in wholesale prices across countries. One could of course argue that Russia sold its energy cheaply to Germany to make the country dependent. But the data challenge the common perception that Germany receives cheap gas.

Over the past decade, German industry has paid about 10% more for natural gas than its competitors in other major European economies. Supplies from North Sea fields have enabled British industrial firms to pay even less than their continental peers, but this does not appear to have helped them much.

The implication is that Russia obtained a non-economic benefit (German dependence on its gas supplies) for almost no cost. The inverse of this is that Germany experienced a loss of energy independence without gaining a noticeable economic advantage.

The one large economy that is both energy-intensive and has

cheap natural gas is the United States. The average US citizen uses more than twice as much natural gas as a European – 25 megawatt-hours per year for the US, compared to about 10MWh for European countries. Moreover, US natural-gas prices have been somewhat lower than German or EU prices for most of the past two decades, and are now only a fraction of the European price, as European prices have increased by a factor of five, whereas US prices have changed little. Despite this cost advantage, however, the manufacturing industry of the US – and that of the United Kingdom – has not grown particularly strongly.

Adjusting to a world without Russian gas is of course a major problem for Europe. Yet, although Germany seems more vulnerable because it used to receive a large share of its gas from Russia, this can change quickly. Germany is building new regasification capacity in record time to allow the country to import the quantities of liquefied natural gas needed to fill the gap between lower Russian supplies and domestic demand, which is already falling because of high prices.

Once this import capacity has been constructed, Germany will be in the same situation as its European neighbours, which also have to bid for LNG. Prices are likely to stay high for some time. But with an energy intensity below the EU average, Germany should be able to bear the burden slightly better than Italy, Spain, and some Eastern European countries. France, of course, will be much less affected, at least if its nuclear reactors can resume full production.

We should also not forget the global picture. Bottling up a large percentage of Russian gas (which is what will happen if Europe no longer buys from Russia) increases the global gas price, which affects Asian countries as well, because they compete with Europe on LNG. South Korea and Japan have a higher energy intensity than Europe, and even China imports large quantities of LNG, at a price similar to what European countries pay.

Expensive energy, particularly natural gas, poses a difficult economic and political challenge for all energy-importing

industrialised countries. Only the US and some other smaller energy producers such as Norway, Canada, and Australia benefit from this situation. But the data suggest that Germany is better placed to weather this crisis than most of its main competitors. – Project Syndicate

* Daniel Gros is a member of the board and a distinguished fellow at the Centre for European Policy Studies.

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# بارودي: الجهود الأميركية بدأت تتسم بالإيجابية ما سيمكّن لبنان خلال شهر من بدء التنقيب عن النفط والغاز

، "الجهود رودي بارودي ثمّن الخبير الدّولي في مجال الطّاقة، الخارجية ولا سيّما الولايات المتحدة الأميركية الّتي تقوم بها ، عبر الوسيط آموس هوكستين، من أجل تسوية النّزاع الأميركية

”، لافتًا إلى أنّ “هذه إسرائيل و لبنان الحدودي البحري بين الجهود بدأت تتّسم بالإيجابيّة، ما سيمكّن لبنان في خلال شهر على النفط عن التنقيب أبعد تقدير من الدّخول فعليًّا في عمليّة ، ولا سيّما في البلوكات الجنوبيّة، وتحديدًا البلوك رقم 9 والغاز قانا حيث حقل ”.

وأشار، في تصريح، إلى أنّ “الطّرح الإسرائيلي للمرور بالبلوك اللّبناني رقم 8، هو مجرّد مناورة ذكيّة لهدف آخر، ذلك أنّ اتفاقيّة الغاز بين إسرائيل وقبرص واليونان، الّتي تمتدّ إلى إيطاليا وكانت قد وُقّعت في 3 كانون الثّاني من العام 2020، لن ترى النّور، باعتبار أنّ لا جدوى اقتصاديّة منها، لأنّه مهما كانت كميّة الغاز المنتَجة حاليًّا، فلن تكون مبرّرًا لإنفاق من 12 إلى 14 مليار يورو، لبناء خطّ أنابيب بقطر 48 إنشًا لمسافة 1125 ميلاً”.

وجدّد بارودي الإشادة بـ”إيجابيّة المفاوضات الجارية حاليًّا، وبالجهود المبذولة لحماية حقوق لبنان على الصّعيد الدّولي”، الدولة مركّزًا على أنّ “أكثر الأخبار إيجابيّةً، هي أنّ أركان متّفقون على التوجّه ذاته”. وأعرب عن تفاؤله بأنّ اللبنانية الاتّفاق سيصل إلى خواتيم مشجّعة ترضي جميع الجهات”.

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# How Europe Became So Dependent on Putin for Its Gas

Russian gas is attractive to Europe because it’s usually cheap, easy to transport and almost always available. Some European Union countries depend on it because they are shutting coal plants, and Germany is even planning for the end of nuclear power. Russia’s dominance has been enhanced by the depletion of North Sea fields controlled by the U.K. and the Netherlands. Gazprom PJSC supplies about a third of all gas

consumed in Europe and, before the Russian invasion of Ukraine, was on track to become even more important as the continent shrinks its own production. In March, however, Russia threatened to cut supplies, and the European Union began mapping out a path to reduce its dependence.

1. How did Russia become so significant?

With its vast Siberian fields, Russia has the world's largest reserves of natural gas. It began exporting to Poland in the 1940s and laid pipelines in the 1960s to deliver fuel to and through satellite states of what was then the Soviet Union. Even at the height of the Cold War, deliveries were steady. But since the Soviet Union broke up, Russia and Ukraine have quarreled over pipelines through Ukrainian territory, prompting Russian authorities to find other routes.

2. How vulnerable is Europe?

A supply crunch in late 2021 provided a vivid insight into Europe's reliance on gas flows from Russia. Storage tanks in the EU fell to their lowest seasonal level in more than a decade after longer-than-usual maintenance at Norwegian fields and Russia rebuilding its own inventories. Benchmark gas prices more than tripled. The EU vowed a decade ago to reduce its dependence on Russian energy, and continuing purchases by member nations have been a contentious issue within the economic bloc and caused rifts with the U.S.

3. What role does Ukraine play?

About a third of Russian gas flowing to Europe passes through Ukraine. Even as the crisis in the region escalated into war, analysts said Russia, with a history of supply disruptions over price disputes, probably would strive to be seen as a reliable supplier. Gazprom's shipments to Europe and Turkey were about 177 billion cubic meters in 2021, according to calculations by Bloomberg News and BCS Global Markets based on the company's data. When Ukraine and Russia reached a five-

year gas transit deal in December 2019, assuring supplies until 2024, Ukrainian President Volodymyr Zelenskiy said the nation would earn at least $7 billion from transit fees.

4. How has Russia disrupted the market before?

In 2006 and 2009, disputes with Ukraine over pricing and siphoning of gas led to cutoffs of Russian supplies transiting through the country. The second shutdown lasted almost two weeks in the dead of winter. Slovakia and some Balkan countries had to ration gas, shut factories and cut power supplies. Since then, the most vulnerable countries have raced to lay pipelines, connect grids and build terminals to import liquefied natural gas, a supercooled form of the fuel that can be shipped from as far as Qatar and the U.S.

5. What supply networks are there?

Outside supplies, mostly from Russia, Norway and Algeria, account for about 80% of the gas the EU consumes. Some of the biggest economies are among the most exposed, with Germany importing 90% of its needs — much of it via a pipeline under the Baltic Sea called Nord Stream, which has been fully operational since 2012. (This was the supply line Russia on March 7 suggested could be cut as part of its response to sanctions imposed over the invasion of Ukraine.) Belgium, Spain and Portugal face the problem of low storage capacity, as does the U.K., which no longer is part of the bloc and closed its only big gas storage site. The continent has a mass of pipelines, including Yamal-Europe, which runs from Russia through Belarus and Poland before reaching Germany, and TAG, which takes Russian gas to Austria and Italy. Many cross several borders, creating plenty of possible choke points.

6.  What about the Nord Stream 2 pipeline?

It was against this background that Nord Stream 2, a new Russian pipeline alongside the first, was completed in late 2021. But it has become entangled in politics and a lengthy

regulatory process. There was strong opposition from the U.S., which imposed sanctions that delayed construction. Following the eruption of the war in Ukraine, Germany suspended its certification process for Nord Stream 2, and the EU's executive arm readied a revised energy strategy for the bloc to "substantially reduce our dependency on Russian gas this year."

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# Russia cuts gas flows further as Europe makes savings plea


Reuters/Berlin/Frankfurt

Russia delivered less gas to Europe yesterday in a further escalation of an energy stand-off between Moscow and the

European Union that will make it harder, and costlier, for the bloc to fill up storage ahead of the winter heating season.
The cut in supplies, flagged by Gazprom earlier this week, has reduced the capacity of Nord Stream 1 pipeline – the major delivery route to Europe for Russian gas – to a mere fifth of its total capacity.
Nord Stream 1 accounts for around a third of all Russian gas exports to Europe.
On Tuesday, EU countries approved a weakened emergency plan to curb gas demand after striking compromise deals to limit cuts for some countries, hoping lower consumption will ease the impact in case Moscow stops supplies altogether.
The plan highlights fears that countries will be unable to meet goals to refill storage and keep their citizens warm during the winter months and that Europe's fragile economic growth may take another hit if gas will have to be rationed.
Royal Bank of Canada analysts said the plan could help Europe get through the winter provided gas flows from Russia are at 20-50% capacity, but warned against "complacency in the market European politicians have now solved the issue of Russian gas dependence."
While Moscow has blamed various technical problems for the supply cuts, Brussels has accused Russia of using energy as a weapon to blackmail the bloc and retaliate for Western sanctions over its invasion of Ukraine.
Kremlin spokesman Dmitry Peskov said Gazprom was supplying as much gas to Europe as possible, adding that sanctions-driven technical issues with equipment were preventing it from exporting more.
Yesterday, physical flows via Nord Stream 1 tumbled to 14.4mn kilowatt hours per hour (kWh/h) between 1000-1100 GMT from around 28mn kWh/h a day earlier, already just 40% of normal capacity.
The drop comes less than a week after the pipeline restarted following a scheduled 10-day maintenance period.
European politicians have repeatedly warned Russia could stop gas flows completely this winter, which would thrust Germany

into recession and send prices for consumers and industry soaring even further.

The Dutch wholesale gas price for August, the European benchmark, jumped 9% to 205 euros per megawatt hour yesterday, up around 412% from a year ago.

German finance minister Christian Lindner said he was open to the use of nuclear power to avoid an electricity shortage.

Germany has said it could extend the life of its three remaining nuclear power plants, accounting for 6% of the country's overall power mix, in the face of a possible cut-off of Russian gas.

Klaus Mueller, head of Germany's network regulator, said the country could still avoid a gas shortage that would prompt its rationing. Germany, Europe's top economy and its largest importer of Russian gas, has been particularly hit by supply cuts since mid-June, with its gas importer Uniper requiring a 15bn euro ($15.21bn) state bailout as a result. Uniper and Italy's Eni both said they received less gas from Gazprom than in recent days.

Mueller issued another plea to households and industry to save gas and avoid rationing.

"The crucial thing is to save gas," Mueller said. "I would like to hear less complaints but reports (from industries saying) we as a sector are contributing to this," he told broadcaster Deutschlandfunk.

German industry groups, however, warned companies may have no choice but cut production to achieve bigger savings, pointing to slow approval for replacing natural gas with other, more polluting fuels.

Mercedes-Benz chief executive Ola Kaellenius said a mixture of efficiency measures, increased electricity consumption, lowering temperatures in production facilities and switching to oil could lower gas use by up to 50% within the year, if necessary.

Germany is currently at Phase 2 of a three-stage emergency gas plan, with the final phase to kick in once rationing can no longer be avoided.

# No net zero without nature

By Nigel Topping And Mahmoud Mohieldin/ London

Businesses, investors, and governments that are serious about fulfilling net-zero emissions pledges before 2050 should be rushing to protect, conserve, and regenerate the natural resources and ecosystems that support our economic growth, food security, health, and climate. Yet there appear to be worryingly few trailblazers out there.

Worse, we are quickly running out of time. The science makes clear that to avoid the most catastrophic effects of climate change and to build resilience against the effects that are already inevitable, we must end biodiversity loss before 2030. That means establishing lasting conservation for at least 30% of land and sea areas within eight years, and then charting a course toward living in harmony with nature by 2050.

Though the challenge is massive, ignoring it makes no sense from a business perspective. A World Economic Forum white paper estimates that nature-positive policies “could generate

an estimated $10tn in new annual business value and create 395mn jobs by 2030.” Among other things, such policies would use precision-agriculture technologies to improve crop yields – diversifying diets with more fruit and vegetables in the process – and boost agroforestry and peatland restoration.

A nature-positive approach can also be more cost-effective. For example, the Dasgupta Review (the Final Report of the United Kingdom’s Independent Review on the Economics of Biodiversity) finds that green infrastructure like salt marshes and mangroves are 2-5 times cheaper than grey infrastructure such as breakwaters.

Nonetheless, private-sector action is lagging, including in economic sectors where the health of value chains is closely tied to that of nature. That is one key finding from an analysis just released by the UN Climate Change High-Level Champions, Global Canopy, Rainforest Alliance, and others.

Out of 148 major companies assessed, only nine – or 6% – are making strong progress to end deforestation. Among them are the Brazilian paper and pulp producer Suzano and five of the largest consumer goods companies: Nestlé, PepsiCo, Unilever, Mars, and Colgate-Palmolive.

Unilever, for example, is committed to a deforestation-free supply chain by 2023, and thus is focusing on palm oil, paper and board, tea, soy, and cocoa, as these contribute to more than 65% of its impact on land. Nestlé has now made over 97% of its primary meat, palm oil, pulp and paper, soy, and sugar supply chains deforestation-free. And PepsiCo aims to implement regenerative farming across the equivalent of its agricultural footprint by 2030, and to end deforestation and development on peat.

These are positive steps, but they represent exceptions, rather than any new normal. Moreover, the financial sector has also been slow to turn nature-positive. Since the COP26 climate-change conference in Glasgow last year, only 35 financial firms have committed to tackle agricultural commodity-driven deforestation by 2025. The hope now is that more firms will join the deforestation commitment by COP27

this November. Under the umbrella of the Glasgow Financial Alliance for Net Zero, 500 financial firms (representing $135tn in assets) have committed to halving their portfolios' emissions by 2030 and reaching net zero by 2050. And now, the Alliance has issued new net-zero guidance that includes recommended policies for addressing deforestation.

Nature functions as a kind of global capital, and protecting it should be a no-brainer for businesses, investors, and governments. The World Economic Forum finds that "$44tn of economic value generation — over half the world's total GDP — is moderately or highly dependent on nature and its services." But this profound source of value is increasingly at risk, as demonstrated by the current food crisis, which is driven not just by the war in Ukraine but also by climate-related disasters such as drought and India's extreme heatwave, locust swarms in East Africa, and floods in China.

Businesses increasingly have the tools to start addressing these kinds of problems. Recently, the Science Based Targets initiative released a methodology for targeting emissions related to food, land, and agriculture. Capital for Climate's Nature-Based Solutions Investment platform helps financiers identify opportunities to invest in nature with competitive returns. And the Business for Nature coalition is exploring additional moves the private sector can make.

Governments have also taken steps in the right direction. At COP26, countries accounting for over 90% of the world's forests endorsed a leaders' declaration to halt forest loss and land degradation by 2030. And a dozen countries pledged to provide $12bn in public finance for forests by 2025, and to do more to leverage private finance for the same purpose. They can now start meeting those commitments ahead of COP27 in Sharm El-Sheikh, by enacting the necessary policies, establishing the right incentives, and delivering on their financial promises.

Meanwhile, the UN-backed Race to Zero and Race to Resilience campaigns will continue working in parallel, helping businesses, investors, cities, and regions put conservation of

nature at the heart of their work to decarbonise and build resilience. The five strong corporate performers on deforestation are in the Race to Zero, and the campaign's recently strengthened criteria will pressure other members to do more to use biodiversity sustainably and align their activities and financing with climate-resilient development. The world is watching to see if the latest promises of climate action are robust and credible. By investing in nature now, governments and companies can show that they are offering more than words. – Project Syndicate

• *Nigel Topping is the United Kingdom's High-Level Climate Champion for COP26 in Glasgow. Mahmoud Mohieldin is Egypt's High-Level Climate Champion for COP27 in Sharm El-Sheikh*.

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# Why Biden's climate agenda has faltered

Instead, he has seen his legislative ambitions defeated by Congress, the Supreme Court has delivered a hammer blow to the federal government's ability to regulate greenhouse gasses, and the Ukraine crisis has been a boon for fossil fuels.

As the Democrat is poised to announce a series of new executive measures, including additional funding to help protect communities from extreme heat and boosting wind production, here is an overview of his term so far.

– What's at stake –

Shortly after taking office, Biden announced he was targeting a 50-52 percent reduction from 2005 levels in US economy-wide net greenhouse gas pollution in 2030, before achieving net zero in 2050, as part of the country's Paris Agreement goals.

"Biden has said he thinks that climate change is the existential issue of our time," and has been more emphatic than any of his predecessors including Barack Obama, Paul Bledsoe of the Progressive Policy Institute told AFP.

The president has framed the issue as key to the economic and national security of the United States, as well as public safety – and climate scientists are sounding the alarm now more than ever.

"I think that more and more people are realizing that we're living through what could eventually cause us to lose everything in terms of habitability and everything that we value in life," climate scientist Peter Kalmus told AFP.

Europe's punishing heatwave serves as a timely reminder that warming won't be an issue confined to the Global South, but instead threatens civilization as we know it, he added.

– Congress, the Supreme Court, and Ukraine –

The main legislative plank of Biden's agenda was to have been the Build Back Better bill, which would have plowed $550

billion into the clean energy and climate businesses – much coming from tax credits and incentives.

That effort is now in tatters after Democratic Senator Joe Manchin, a fossil fuel booster who wields outsized power in the evenly split Senate, walked away last week from the bill that he'd promised to back.

At the end of June, the conservative supermajority Supreme Court found that the federal Environmental Protection Agency cannot issue broad limits on greenhouse gasses, such as cap-and-trade schemes, without Congressional approval.

"So we're on two strikes," said Bledsoe, who served as a climate aide to former president Bill Clinton.

What's more, the oil industry has pushed for more drilling in the wake of Russia's invasion of Ukraine, casting the issue as one of energy security.

A recent analysis by the Institute for Energy Research said that Biden's government picked up the pace of drilling permits on public land from March onward "to mollify the political pressure rising along with pump prices."

Biden had vowed to end new drilling on public lands, but his "pause" was overturned by a Trump-appointed judge in 2021.

On the other hand, there have been some partial wins: the administration has promulgated tighter emissions standards for vehicles, and toughened regulations on super-polluting methane emissions, said Bledsoe.

The bipartisan infrastructure law, passed last November, also contained some climate provisions, including $7.5 billion for a nationwide network of electric vehicle chargers and investments in carbon capture and hydrogen technologies.

– What's next? –

But without the big ticket items, the United States is falling far short of its goals.

The Rhodium Group, an independent research firm, finds that "as of June 2022, we find that the US is on track to reduce emissions 24 percent to 35 percent below 2005 levels by 2030 absent any additional policy action."

The White House has not ruled out declaring a "climate emergency," which would grant Biden additional policy powers, but given a hostile judiciary, this would likely be subject to legal challenge.

Bledsoe said to achieve real change, Biden should instead push for broad public backing.

"Democrats should make popular consumer clean energy tax br

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# Absorbing energy transition shock

By Owen Gaffney/ Stockholm

**The challenge for politicians is to devise fair policies that protect people from the inevitable shocks**

Russia’s war on Ukraine has sent shockwaves around the world. Oil prices have skyrocketed and food prices have soared, causing political instability. The last time food prices were this volatile, riots erupted across the Arab world and from Burkina Faso to Bangladesh. This time, the energy and food shock is happening against the backdrop of the Covid-19 pandemic. When will the shocks end?

They won’t. So, we can choose either resignation and despair, or a policy agenda to build social and political resilience against future shocks. Those are our options, and we had better start taking them seriously, because the shocks are likely to get worse. On top of geopolitical crises, the climate emergency will bring even greater disruptions, including ferocious floods, mega-droughts, and possibly even a simultaneous crop failure in key grain-producing regions worldwide. It is worth noting that India, the world’s second-largest wheat producer, recently banned exports as part of its response to a devastating heatwave this spring.

But here’s the thing: reducing vulnerability to shocks, for example, by embarking on energy and food revolutions, will also be disruptive. The energy system is the foundation of industrialised economies, and it needs to be overhauled to phase out fossil fuels within a few decades. Huge industries like coal and oil will have to contract, and then disappear. And agriculture, transportation, and other sectors will need to change radically to become more sustainable and resilient.
The challenge for politicians, then, is clear: to devise fair policies that protect people from the inevitable shocks.
One idea with significant potential is a Citizen’s Fund, which would follow a straightforward fee-and-dividend equation. Companies that emit greenhouse-gas emissions or extract natural resources would pay fees into the fund, which would then distribute equal payments to all citizens, creating an economic cushion during a period of transformation and beyond.
This is not just an idea. In 1976, the Republican governor of Alaska, Jay Hammond, established the Alaska Permanent Fund, which charges companies a fee to extract oil and then disburses the proceeds equally to all the state’s citizens. In 2021, each eligible Alaskan received $1,114 — not as a “welfare payment” but as a dividend from a state commons (in this case, a finite supply of oil). The largest dividend ever paid was during Republican Sarah Palin’s governorship in 2008, when every Alaskan enjoyed a windfall of $3,269.
In 2017, James Baker and George Shultz, two former Republican secretaries of state, proposed a similar plan for the whole United States, estimating that fees on carbon emissions would yield a dividend of $2,000 per year to every US household. With backing from 3,500 economists, their scheme has broad appeal not just among companies and environmental-advocacy groups but also (and more incredibly) across the political aisle.
The economics is simple. A fee on carbon drives down emissions by driving up the price of polluting. And though companies would pass on these costs to consumers, the wealthiest would be the hardest hit, because they are by far the biggest,

fastest-growing source of emissions. The poorest, meanwhile, would gain the most from the dividend, because $2,000 means a lot more to a low-income household than it does to a high-income household. In the end, most people would come out ahead.

But given that food- and energy-price shocks tend to hit low-income cohorts the hardest, why make the dividend universal? The reason is that a policy of this scale needs both broad-based and lasting support, and people are far more likely to support a programme or policy if there is at least something in it for them.

Moreover, a Citizen's Fund is not just a way to drive down emissions and provide an economic safety net for the clean-energy transition. It would also foster innovation and creativity, by providing a floor of support for the entrepreneurs and risk-takers we will need to transform our energy and food systems.

A Citizen's Fund could also be expanded to include other global commons, including mining and other extractive industries, plastics, the ocean's resources, and even knowledge, data, and networks. All involve shared commons – owned by all – that are exploited by businesses that should be required to pay for the negative externalities they create.

Of course, a universal basic dividend is not a panacea. It must be part of larger plan to build societies that are more resilient to shocks, including through greater efforts to redistribute wealth by means of progressive taxation and empowerment of workers. To that end, Earth4All, an initiative I co-lead, is developing a suite of novel proposals that we see as the most promising pathways to build cohesive societies that are better able to make long-term decisions for the benefit of the majority.

Our most important finding is perhaps the most obvious, but it is also easy to overlook. Whether we do the bare minimum to address the grand challenges or everything we can to build resilient societies, disruption and shocks are part of our future. Embracing disruption is thus the only option and a

Citizen’s Fund becomes an obvious shock absorber. – Project Syndicate

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