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

---

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.*

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

No trash goes to waste on recycling Greek islands

By Sebastien Malo/ Tilos

Before the tiny Greek island of Tilos became a big name in recycling, taverna owner Aristoteles Chatzifountas knew that

whenever he threw his restaurant's trash into a municipal bin down the street it would end up in the local landfill.
The garbage site had become a growing blight on the island of now 500 inhabitants, off Greece's south coast, since ships started bringing over packaged goods from neighbouring islands in 1960.
Six decades later, in December last year, the island launched a major campaign to fix its pollution problem. Now it recycles up to 86% of its rubbish, a record high in Greece, according to authorities, and the landfill is shut.
Chatzifountas said it took only a month to get used to separating his trash into three bins – one for organic matter; the other for paper, plastic, aluminium and glass; and the third for everything else.
"The closing of the landfill was the right solution," he told the Thomson Reuters Foundation. "We need a permanent and more ecological answer."
Tilos' triumph over trash puts it ahead in an inter-island race of sorts, as Greece plays catch-up to meet stringent recycling goals set by the European Union (EU) and as institutions, companies and governments around the world adopt zero-waste policies in efforts to curb greenhouse gas emissions.
"We know how to win races," said Tilos' deputy mayor Spyros Aliferis. "But it's not a sprint. This is the first step (and) it's not easy."
The island's performance contrasts with that of Greece at large. In 2019, the country recycled and composted only a fifth of its municipal waste, placing it 24th among 27 countries ranked by the EU's statistics office.
That's a far cry from EU targets to recycle or prepare for reuse 55% of municipal waste by weight by 2025 and 65% by 2035.
Greece has taken some steps against throwaway culture, such as making stores charge customers for single-use plastic bags.
Still, "we are quite backward when it comes to recycling and reusing here," said Dimitrios Komilis, a professor of solid

waste management at the Democritus University of Thrace, in northern Greece.

Recycling can lower planet-warming emissions by reducing the need to manufacture new products with raw materials, whose extraction is carbon-heavy, Komilis added.

Getting rid of landfills can also slow the release of methane, another potent greenhouse gas produced when organic materials like food and vegetation are buried in landfills and rot in low-oxygen conditions.

And green groups note that zero-waste schemes can generate more jobs than landfill disposal or incineration as collecting, sorting and recycling trash is more labour-intensive.

But reaching zero waste isn't as simple as following Tilos' lead – each region or city generates and handles rubbish differently, said researcher Dominik Noll, who works on sustainable island transitions at Vienna's Institute of Social Ecology.

"Technical solutions can be up-scaled, but socioeconomic and sociocultural contexts are always different," he said.

"Every project or programme needs to pay attention to these contexts in order to implement solutions for waste reduction and treatment."

Tilos has built a reputation as a testing ground for Greece's green ambitions, becoming the first Greek island to ban hunting in 1993 and, in 2018, becoming one of the first islands in the Mediterranean to run mainly on wind and solar power.

For its "Just Go Zero" project, the island teamed up with Polygreen, a Piraeus-based network of companies promoting a circular economy, which aims to design waste and pollution out of supply chains.

Several times a week, Polygreen sends a dozen or so local workers door-to-door collecting household and business waste, which they then sort manually.

Antonis Mavropoulos, a consultant who designed Polygreen's operation, said the "secret" to successful recycling is to

maximise the waste's market value.
"The more you separate, the more valuable the materials are," he said, explaining that waste collected in Tilos is sold to recycling companies in Athens.
On a June morning, workers bustled around the floor of Polygreen's recycling facility, perched next to the defunct landfill in Tilos' arid mountains.
They swiftly separated a colourful assortment of garbage into 25 streams – from used vegetable oil, destined to become biodiesel, to cigarette butts, which are taken apart to be composted or turned into materials like sound insulation.
Organic waste is composted. But some trash, like medical masks or used napkins, cannot be recycled, so Polygreen shreds it, to be turned into solid recovered fuel for the cement industry on the mainland.
More than 100 tonnes of municipal solid waste – the equivalent weight of nearly 15 large African elephants – have been sorted so far, said project manager Daphne Mantziou.
Setting up the project cost less than € 250,000 ($254,550) – and, according to Polygreen figures, running it does not exceed the combined cost of a regular municipal waste-management operation and the new tax of €20 per tonne of landfilled waste that Greece introduced in January.
More than ten Greek municipalities and some small countries have expressed interest in duplicating the project, said company spokesperson Elli Panagiotopoulou, who declined to give details.
Replicating Tilos' success on a larger scale could prove tricky, said Noll, the sustainability researcher.
Big cities may have the money and infrastructure to efficiently handle their waste, but enlisting key officials and millions of households is a tougher undertaking, he said.
"It's simply easier to engage with people on a more personal level in a smaller-sized municipality," said Noll.
When the island of Paros, about 200km northwest of Tilos, decided to clean up its act, it took on a city-sized challenge, said Zana Kontomanoli, who leads the Clean Blue

Paros initiative run by Common Seas, a UK-based social enterprise.

The island's population of about 12,000 swells during the tourist season when hundreds of thousands of visitors drive a 5,000% spike in waste, including 4.5mn plastic bottles annually, said Kontomanoli.

In response, Common Seas launched an island-wide campaign in 2019 to curb the consumption of bottled water, one of a number of its anti-plastic pollution projects.

Using street banners and on-screen messages on ferries, the idea was to dispel the common but mistaken belief that the local water is non-potable.

The share of visitors who think they can't drink the island's tap water has since dropped from 100% to 33%, said Kontomanoli.

"If we can avoid those plastic bottles coming to the island altogether, we feel it's a better solution" than recycling them, she said.

Another anti-waste group thinking big is the nonprofit DAFNI Network of Sustainable Greek Islands, which has been sending workers in electric vehicles to collect trash for recycling and reuse on Kythnos island since last summer.

Project manager Despina Bakogianni said this was once billed as "the largest technological innovation project ever implemented on a Greek island" – but the race to zero waste is now heating up, and already there are more ambitious plans in the works.

Those include CircularGreece, a new €16mn initiative DAFNI joined along with five Greek islands and several mainland areas, such as Athens, all aiming to reuse and recycle more and boost renewable energy use.

"That will be the biggest circular economy project in Greece," said Bakogianni. – Thomson Reuters Foundation

Aviation: long-term climate goal key to net-zero carbon emissions by 2050

The global aviation industry has committed to achieving net-zero carbon emissions by 2050. This commitment brings the industry in line with the Paris Agreement's 1.5C goal.

Climate change is the greatest threat facing our societies and achieving net-zero emissions will be a huge challenge as the expected scale of the industry in 2050 will require the mitigation of nearly 1.8 gigatonnes of carbon.

To fulfil aviation's net-zero commitment, current estimates are for sustainable aviation fuels (SAF) to account for 65% of aviation's carbon mitigation in 2050. That would require an annual production capacity of 449bn litres.

Investments are in place to expand SAF annual production from the current 125mn litres to 5bn by 2025. With effective government incentives, production could reach 30bn litres by

2030, which would be a tipping point for SAF production and utilisation.

In 2021, irrespective of price (SAF is between two and four times the price of conventional jet fuel), airlines have purchased every drop of the 125mn litres of SAF that was available. And already more than 38 countries have SAF-specific policies that clear the way for the market to develop.

Taking their cue from these policy measures, airlines have entered into $17bn of forward-purchasing agreements for SAF.

Further investment in production needs support from the right policies, according to the International Air Transport Association, the global body of airlines. This would boost supply and drive down costs.

Electricity production through solar or wind power faced similar hurdles as these technologies replaced fossil fuels. With effective policy incentives, both are now affordable and widely available.

By applying similar incentive-based policies to SAF, governments can support global SAF production to reach 30bn litres by the end of the decade.

This would be a tipping point as it would send a clear signal to the market that SAF is playing its intended long-term role in aviation’s decarbonisation and encourage investments to drive up production and drive down the price.

The market for SAF needs stimulation on the production side. The United States is setting an example for others to follow. Its SAF production is expected to reach 11bn litres in 2030 on the back of heavy government incentives.

Europe, on the other hand, is the example not to follow. Under its Fit for 55 initiative, the EU is planning to mandate that airlines uplift 5% SAF at every European airport by 2030.

Decentralising production will delay the development of economies of scale. And forcing the land transport of SAF will reduce the environmental benefit of using SAF.

To provide the right set of consistent policies and long-term stability needed for investments, the global aviation industry

has called upon all governments to support the adoption of a long term climate goal for air transport at the 41st Assembly of the International Civil Aviation Organisation (ICAO) this September, aligned with industry commitments.
Undoubtedly, this climate goal is critical to back up the industry's decarbonisation ambitions and would provide a global multilateral framework for action without distorting competition.

QatarEnergy joins 'Aiming for Zero' industry initiative aiming to eliminate methane footprint by 2030

QatarEnergy, the country's hydrocarbon bellwether, has joined the 'Aiming for Zero Methane Emissions' Initiative', an

industry-led move that aims to reach near zero methane emissions from operated oil and gas assets by 2030.

QatarEnergy is the first company to join the initiative outside its 12 existing signatories: Aramco, BP, Chevron, CNPC, Eni, Equinor, ExxonMobil, Occidental, Petrobras, Repsol, Shell and TotalEnergies.

The initiative adopts an all-in approach that treats methane emissions as seriously as the industry treats safety. It supports the implementation of sound regulations to tackle methane emissions and encourages governments to include methane emissions reduction targets as part of their climate strategies.

“By being the first company to join the Aiming for Zero Methane Emissions Initiative outside its 12 existing signatories, we are reaffirming Qatar’s priorities and commitments with regards to the climate change agenda, and its unwavering support to the global effort to reducing emissions, including methane,” HE the Minister of State for Energy Affairs as well as the President and Chief Executive of QatarEnergy, Saad bin Sherida al-Kaabi said.

This also falls in line with QatarEnergy’s recently announced sustainability strategy and follows landmark steps that include signing the guiding principles on reducing methane emissions across the natural gas value chain and endorsing the Global Methane Pledge, he added.

On this occasion, Bob Dudley, chair of the OGCI (Oil and Gas Climate Initiative), said “We are proud to welcome QatarEnergy, one of the world’s largest integrated energy providers, to the Aiming for Zero Methane Emissions Initiative.”

Recognising that eliminating methane emissions from the oil and gas industry represents one of the best short-term ways of addressing climate change, he encouraged others to join this ambitious effort to eliminate the oil and gas industry’s methane footprint by 2030.

The ‘Aiming for Zero Methane Emissions Initiative’ was launched in March 2022 by the OGCI member chief executives.

All energy companies involved in the exploration, extraction and/or production of oil or natural gas can join as signatories at no financial cost.
Other organisations striving to have a positive influence on reducing methane emissions from the oil and gas industry can join as supporters.
Companies joining the Initiative agree to do what it takes to reach near zero methane emissions in their operations, reporting transparently, adopting better monitoring and measurement technologies and supporting the implementation of sound regulations.

Crunch UN talks face pressure to land global nature pact in 2022 By Nita Bhalla and Michael Taylor

Mara Siana Conservancy, /Kenya/Kuala Lumpur

A cross the endless savannah dotted with flat-topped acacia trees, Mara Siana Conservancy in western Kenya teems with elephants, giraffes, zebra and impala, alongside the Maasai people who inhabit the area with their vast herds of livestock.

But this wasn't always the case.

The 25,000-acre (100sq km) landscape adjoining the famed Maasai Mara National Reserve had become devoid of wildlife until the Maasai got together in 2016 to create a community-run wildlife area to protect local biodiversity and generate tourism income.

"When the conservancy started, there was only one zebra and one topi (antelope) in this valley," said Evans Sitati, manager of the Mara Siana Conservancy, standing by his open-topped jeep as a herd of buffalo lazily munched on lush grassland nearby.

"The Maasai's livestock had taken over the land and there was over-grazing and … no space for the wildlife. But within a month of creating the conservancy, the wildlife started coming back."

On Tuesday, crunch UN talks began a few hours' drive away from

Mara Siana conservancy, in the Kenyan capital Nairobi, aimed at tackling this same problem: halting and reversing the devastating loss of biodiversity across the planet.

Improving conservation and management of natural areas, such as parks, oceans, forests and wetlands, is seen as vital to safeguarding the ecosystems and wildlife on which people depend and limiting global warming to internationally agreed goals.

But forests are still being cut down worldwide – often to produce commodities like palm oil, soybean and beef – destroying biodiversity and undermining climate action, as trees absorb about a third of planet-warming emissions produced worldwide.

To tackle such losses, about 195 countries are set to finalise an accord to stem human damage to plants, animals and ecosystems – similar to the Paris climate agreement – at a UN summit, known as COP15.

The UN Convention on Biological Diversity announced on Tuesday that the final part of the summit, led by host nation China, is now scheduled to take place in Canada from December 5-17.

The talks have been postponed several times due to Covid-19, with China finally agreeing that the second part of the summit should be held in Montreal, as it grapples with the pandemic.

The first in-person negotiations in two years held in Geneva in March left many environmentalists frustrated by slow progress, with governments realising an extra session in Kenya was needed this week to land a deal by the end of the year.

“The science is very clear. Biodiversity is in crisis. One million species are at risk of extinction in the next few decades,” said Guido Broekhoven, head of policy at WWF International, which is supporting the Mara Siana conservancy.

“But it’s not just about the biodiversity. The aim is to find ways such as the conservancy project that combines conservation with development objectives to benefit both people and nature.”

Finance provided by rich countries to help developing nations do their part under the expected new nature deal is a thorny

issue, observers said ahead of the Nairobi talks which run from June 21-26.

How to involve and protect the rights of indigenous groups and communities living in and around natural areas – who play a vital role in conservation – is also a live topic, they said.

“Finance remains the largest challenge in the negotiations,” said Brian O’Donnell, director of the US-based Campaign for Nature. “Without adequate finance, policies and programs aimed at conserving nature will not be successful.”

Susan Lieberman, vice president of international policy at the Wildlife Conservation Society, said Nairobi could reach agreement on a widely supported pledge seen as central to the new global deal – to protect at least 30% of the planet’s land and oceans by 2030.

A coalition of more than 80 countries has already backed the 30×30 goal, which is part of the draft treaty, although many biodiversity-rich nations in Southeast Asia are yet to sign up.

“We are in the midst of a global conservation crisis, with increasing species extinctions and increasing risk of ecosystem collapse,” said Lieberman.

“The adoption of a strong framework of government commitments on biodiversity is critical – it cannot wait.”

Rights groups say a global pact will only succeed on the ground if it brings onboard indigenous peoples like the Maasai.

They comprise less than 5% of the world’s population but protect 80% of the Earth’s biodiversity in forests, deserts, grasslands and marine environments, where they have lived for centuries, according to WWF.

Yet there is very little recognition of, or support for, their efforts in ensuring a resilient and healthy planet, especially in Africa.

Kenya’s community-run protected wildlife areas, known as conservancies, have often been lauded as a gold standard in benefiting both people and nature.

Maasai landowners lease part of their land for safari camps

and lodges, and as shareholders, local communities earn tourist dollars from camp stays, game drives, village tours and handicrafts.

The funds generated are also used to improve access to water, healthcare and education for communities, and to help them set up small businesses, while maintaining their traditional herding way of life.

There are 15 conservancies around the Mara, collectively benefiting more than 100,000 people through land lease payments and salaried jobs including rangers, tour guides, housekeepers and drivers.

But even this model faces challenges.

Fidelis Mpoe, a Maasai ranger at Mara Siana Conservancy whose father is one of its 1,500 shareholders, said climate change was taking a toll, with increasing dry spells forcing locals to bring their cattle into the conservancy to graze.

“This leads to more human-animal conflict, especially with the elephants trampling over children who are herding. Then the community wants to take revenge on the animal and we have to try and make them understand,” he added.

In neighbouring Tanzania, violence has erupted between Maasai pastoralists and security forces over government plans to cordon off their land for wildlife protection.

Earlier this month, one officer was killed and several protesters were injured during demonstrations by the Maasai, who accuse the authorities of trying to force them off their land to make way for safaris and hunting expeditions.

The government has rejected these accusations, saying it wants to protect the area from human activity.

“Fortress conservation efforts that result in the forcible dispossession of people are no solution to the biodiversity crisis,” said Basma Eid, campaign co-ordinator at the International Network for Economic, Social and Cultural Rights, an alliance of over 280 organisations representing indigenous groups.

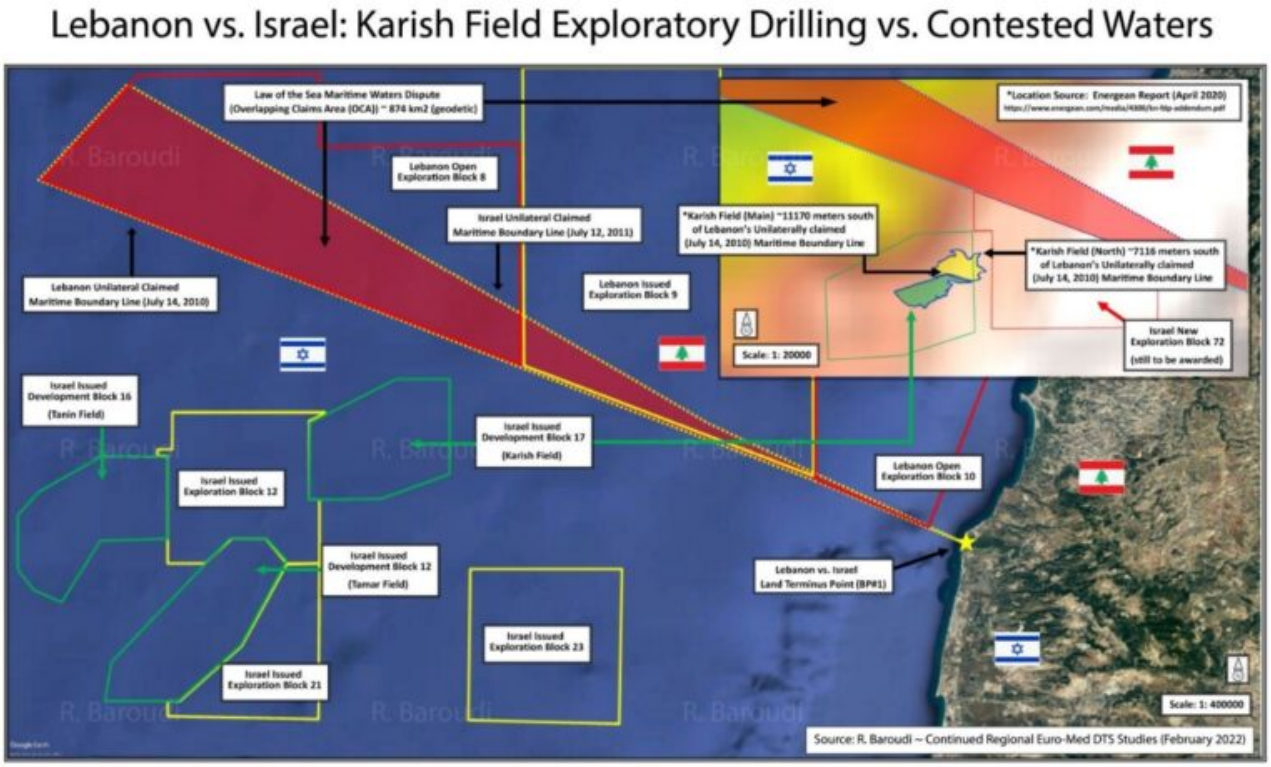
“In Nairobi, states must commit to adopting a human rights approach overall, in cross-cutting ways across key targets,”

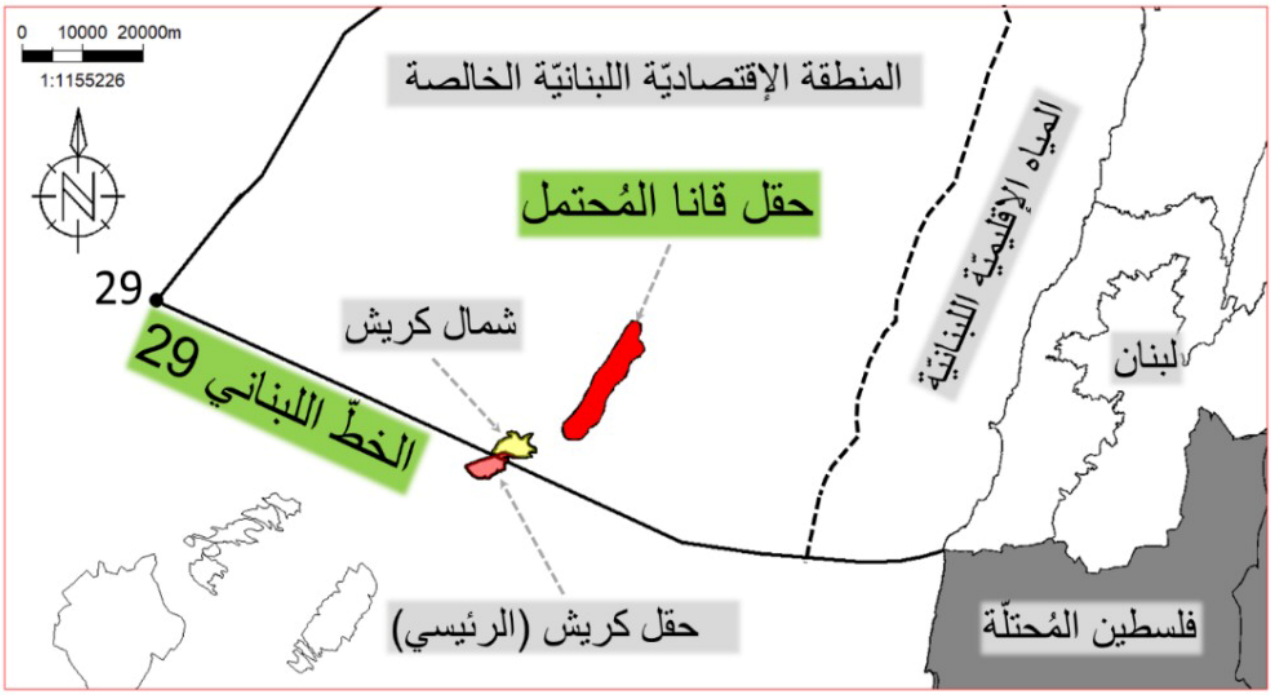
she said in a statement. – Thomson Reuters Foundation

بارودي يؤكد صوابية طلب لبنان الخاص بالمباحثات والمفاوضات على الحدود البحرية

بارودي يؤكد صوابية طلب لبنان الخاص بالمباحثات والمفاوضات على الحدود البحرية ويؤكد صوابية طلبه مستعيناً بقضايا مماثلة حصلت في السابق وتم البت بها من قبل محكمة العدل الدولية

ثروة "كاريش" بين 22 و25 مليار دولار





كَثُرَت في الفترة الأخيرة الخيارات المتاحة في نظر بعض المسؤولين

في لبنان، لتأمين مصادر يتم عبرها تسديد أموال المودِعين… فما أن طُرِح إنشاء الصندوق السيادي، حتى ارتأى البعض اللجوء إلى رهن جزء من احتياطي الذهب… لكن ما لم يكن في الحسبان أن يقترح أحدهم استخدام أموال ثروةٍ لبنان النفطية لتسديد الودائع ولتغطية كلفة الدين العام! علماً أن مفاوضات ترسيم الحدود البحرية بين لبنان وإسرائيل عالقة منذ أيار 2021، ولا تزال الضبابية تلف هذا الملف محلياً ودولياً.

الخبير الدولي في مجال الطاقة رودي بارودي يعلّق, في حديث إلى موقع القوات اللبنانية الإلكتروني، على الفائدة المالية من حقول النفط التي يؤمَل أن تشكّل الثروة النفطية للبنان، ليؤكد أنه "في حال حصول لبنان على جزء من حقل كاريش, فإن حصته لا تكفي لتغطية الدين العام اللبناني حتى وفق أسعار النفط والغاز المعتمدة حالياً"، ويقول "ربما قد تغطي حصّة لبنان من حقل كاريش أو غيره، جزءاً ضئيلاً فقط من الدين العام".

ويعتبر أنه "من غير المؤكد ما إذا كان لبنان سيتمكّن من الحصول على الخط 23، من دون معالجة مجموعة من الأخطاء الجسيمة التي ارتُكِبَت عند البدء بوضع الخطوط من 1 الى 23 قبل نحو 12 عاماً".

ويكشف بارودي عن أن حقل "كاريش" المكتشَف العام 2013 يحتوي على 2.5 ترليون قدم مربّع من الغاز. وهذا الحقل تم اكتشافه من قبل الشركة الإسرائيلية "ديليك" العام 2013 والتي باعته بدورها إلى "إينيرجيان"".

ويقول، إذا تم احتساب الكمية على أساس أسعار الغاز والنفط الحالية، فإن المردود المتوقع من حقل "كاريش" يتراوح ما بين 22 و25 مليار دولارٍ أميركي. لكن لا يمكن تقدير مردود حقل "قانا" لأنه قد يكون ممتداً إلى إسرائيل، كما أن حقل "كاريش" متداخل بين لبنان وإسرائيل.

ويُلفت إلى أن إسرائيل أنجزت التحضيرات اللازمة لبدء الإنتاج النفطي وذلك بعد أعوام عدة من الدراسات وعمليات الاستكشاف، فقد عاودت شركة "إينيرجيان" المطوِّرة لحقل "كاريش" الحَفر في الحقل ذاته بحثاً عن المزيد من الغاز والنفط، ويوضح أن "إسرائيل تقوم حالياً بالحَفر في محاذاة الخطّ اللبناني التفاوضي "29" لتنتقل بعد ذلك إلى شمال "كاريش".

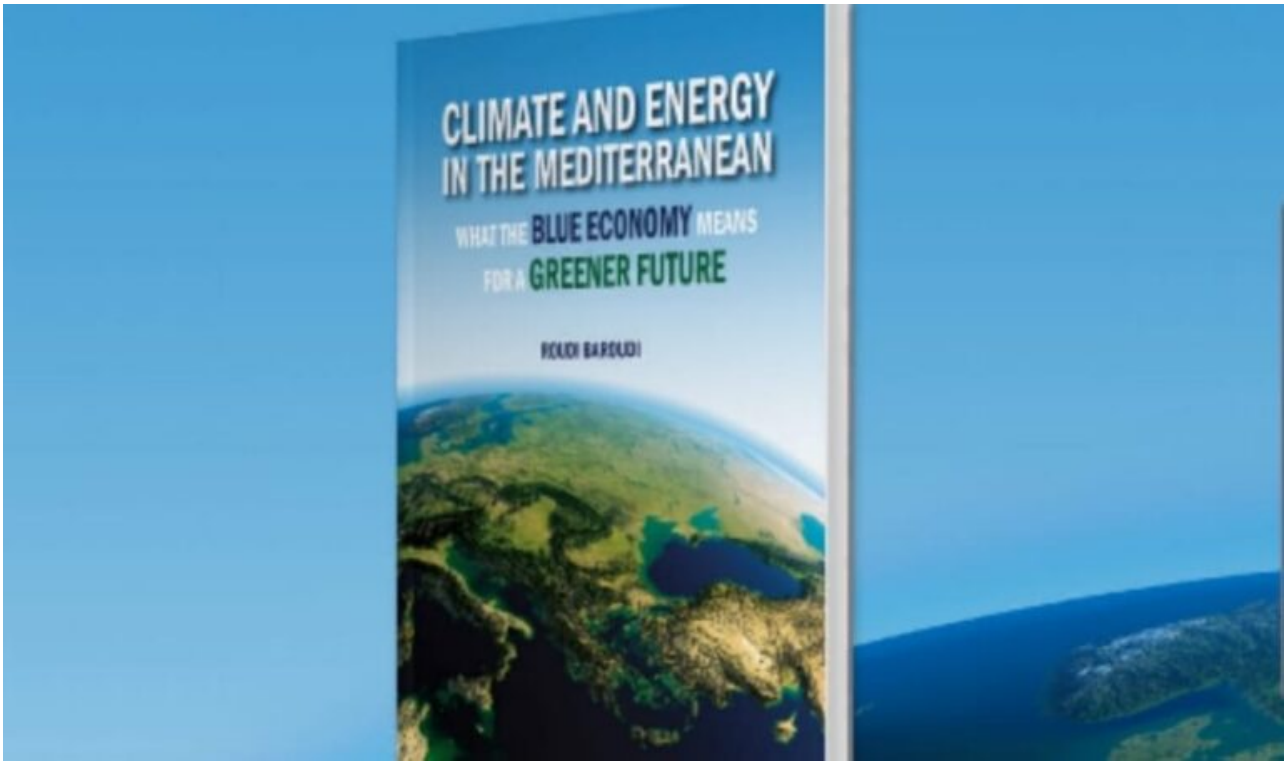
ويُذكِّر في السياق بأن "لبنان أعلن في رسالَتَيه إلى الأمم

المتّحدة الأولى في 22 أيلول 2021 والثانية في 28 كانون الثاني 2022، أن حقل كاريش يقع في منطقة متنازع عليها… لكنٍ على الرغم من ذلك، يتم التنقيب في المياه المتنازَع عليها عموماً، ولا سيما في البلوك رقم "9" المُعطّل حالياً إلى أن تُحلّ قضية الترسيم بين لبنان وإسرائيل".

أما بالنسبة إلى الموقع الجغرافي لحقل "كاريش" المكوَّن من جزءين: شمالي وجنوبي (الخريطة مرفقة)، يؤكد بارودي من خلال الدراسة التي أعدّها خلال السنوات الممتدة من العام 2011 إلى العام 2021، أن "حقل كاريش الشمالي يَبعد عن الخط المقترح من قبل لبنان في 14 تموز 2010 (الخط 23) حوالي 7 كلم و116 متراً، كما أن حقل كاريش الجنوبي يَبعد عن الخط نفسه، حوالي 11 كلم و170 متراً جنوباً، وذلك بحسب الخريطة المرفقة والتي تؤكد المواقع والبُعد عن الحَقلين".

أما بالنسبة إلى البلوك الإسرائيلي الرقم "72" والمتداخل في الأراضي اللبنانية، فهو ملاصق بشكل مباشر للخط "23"، بحسب بارودي.

رياح المتوسط تنتج طاقة تضاهي طاقة المفاعلات النووية في العالم


CLIMATE AND ENERGY
IN THE MEDITERRANEAN
WHAT THE BLUE ECONOMY MEANS
FOR A GREENER FUTURE