

# Qatar urges switch to LNG to address climate concerns



Qatar has urged energy consumers across the globe to increasingly switch towards liquefied natural gas (LNG), which alone has four key characteristics to tackle environmental challenges.

Drawing attention to unprecedented recurrent climatic conditions, including mean temperatures, turbulent seasonal cycles and extreme events, HE the Minister of State for Energy Affairs, Saad bin Sherida al-Kaabi said it is time to take another look at natural gas and the number of advantages it has to make it a pivotal element in any strategy to tackle environmental challenges.

“It is versatile, flexible, economic, and clean. No other energy source can boast the combination of all these four qualities,” he told the 8th LNG Producer-Consumer Conference in Tokyo.

Al-Kaabi, who is also the president and chief executive of Qatar Petroleum, highlighted the country’s efforts to

reinforce its position as the world's leading LNG producer, which include the North Field expansion to increase the LNG production capacity to 110mn tonnes per year by 2024, and a major ship-building campaign to build up to 100 LNG carriers over the next decade.

The LNG industry is very dynamic and invigorated, and it connects all corners of the world through hundreds of trade routes, and LNG receiving and regasification terminals, he said, adding, "we, in Qatar, are doing our part to keep this momentum moving forward for the benefit of our partner countries and their peoples."

Stressing that Qatar was collaborating with many countries around the world to ensure the security of their energy supplies and the sustainability of their economic growth, he said Doha is also working with customers, industry players, and stakeholders for a sustainable, affordable and secure energy supply for all.

"Most importantly, we are providing a sustainable energy solution to environmental and climate change concerns, and responding to widespread global moves towards cleaner and more cost effective fuels," he said.

Al-Kaabi pointed out that while Japan was celebrating 50 years since the arrival of its first ever LNG cargo, Qatargas has successfully delivered the 3,000th LNG cargo to JERA's Kawagoe Terminal.

The LNG Producer-Consumer Conference is a global annual dialogue, launched in 2012, and organised by Japan's Ministry of Economy, Trade and Industry, and the Asia Pacific Energy Research Centre.

It provides ministers, heads of international organisations, corporate executives, and other stakeholders with a venue to share the latest trends in the global LNG market and discussing opportunities and challenges with a view to its

development.

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# Titans of business and politics pledge to fight global warming



Bloomberg/New York

Millions of people in 170 countries took to the streets to protest. World leaders lined up at the UN to pledge action. A 16-year-old girl, close to tears, shamed them for robbing her of a future.

The pressure to act on climate change is mounting. Titans of global business and politics gathered in New York this week for a series of events, including an unprecedented UN summit and the Bloomberg Global Business Forum, to acknowledge that more must be done – but fell short of saying exactly what will be done.

“Time is running out in the court of public opinion, because time is running out to address climate change,” New Zealand Prime Minister Jacinda Ardern told heads of state and business chiefs at the Global Business Forum on Wednesday. “It’s right for them to hold our feet to the fire.”

The stakes have indeed never been higher. Temperatures have already risen 1 degree Celsius (2 degrees Fahrenheit) since the 1880s. The world must limit that warming to no more than 2 degrees above Industrial Revolution levels, the UN has warned, to avoid the most catastrophic of droughts, floods, mass migrations and conflicts. “You can just feel the groundswell of popular sentiment, that the urgency of this is elevated,” Goldman Sachs Group Inc chief executive David Solomon said during the forum.

When asked whether there’s enough information out there to determine his own bank’s exposure to climate change, Solomon said, “We’re working on it. The answer is we’re working on it.” It was a response that underscored both the heightened awareness among leaders that they will be held responsible for global warming and the work that still lays ahead of them.

The meetings were still “far too much a chance for people to beat their chests and say they’re making change,” said Brad Cornell, a business professor at the University of California at Los Angeles. “But who is making real change?”

The UN pointed to some change that came from its Monday summit: 77 countries committed to cutting greenhouse-gas emissions to net zero by 2050; 70 countries pledged to bolster climate action plans by 2020; more than 100 business leaders aligned themselves with the goals of the international Paris climate agreement; and 12 countries vowed to contribute to a fund to help developing countries adapt to climate change.

Nobody says that’s enough. UN Secretary-General Antonio Guterres, who organised the summit and called on world leaders to announce real plans at it, said as presentations concluded, “We need more concrete plans.”

The UN-backed Intergovernmental Panel on Climate Change released a report Wednesday with alarming findings on fast-

accelerating and potentially irreversible deterioration of oceans and glaciers.

While some of the world's most powerful leaders sounded off on climate in New York, a UN panel convened almost 400 miles (600 kilometres) away in Montreal to continue a years-long debate over curbing emissions from airplanes. The group may decide on what kind of system to use to regulate them – a laborious and highly political process that went largely unmentioned in Manhattan. And yet there were signs in New York that the tide is turning in favor of real action.

At the conclusion of Monday's annual meeting of the Oil and Gas Climate Initiative, an industry-supported group that also met in New York, the majority of the member CEOs stuck around for a discussion on climate change. In all, nine were present at the talk, including the bosses of Exxon Mobil Corp and Chevron Corp who faced questions from students and activists as well as reporters.

"And they were listening," according to Felipe Bayon, CEO of Colombia's state-run oil giant Ecopetrol. "I'm very encouraged. As a citizen of the world, I think that a lot of things are possible."

Credited for inspiring the millions of young people who've rallied around climate change in recent days is Greta Thunberg. The teenage activist sailed to New York on a zero-emissions boat, climbed the stage at the UN summit and told the crowd of more than 300 presidents, prime ministers, CEOs, bankers and delegates that they've let down her entire generation by not acting on climate change. "You have stolen my dreams and my childhood with your empty words," she said on Monday. "How dare you!"

Anand Mahindra, chairman of India's Mahindra & Mahindra Ltd, said Thunberg gives him hope, as do all of the young people calling for change. It took the youth of the 1960s protesting the Vietnam War to wake everyone up to the fact that the war needed to end, Mahindra said. He's hopeful, he said, that they can do it again to win the fight against climate change.

The movement grew so big that even US President Donald Trump,

who has called climate change a myth and vowed to pull America out of the Paris pact, made an unexpected appearance at the UN summit. He stayed for 15 minutes and didn't speak. China President Xi Jinping didn't attend the summit at all – leaving the leaders of the world's two largest polluters visibly absent from the presenters' list.

During the Global Business Forum on Wednesday, business leaders repeatedly pointed the finger at government to step up and dictate what should be done. "The more there's a clear policy framework," Solomon said, "the more you'll get a reaction and response."

Samir Assaf, CEO of global banking and markets at HSBC Holdings Plc, had one idea: "The private sector can provide debt, and national development banks can provide guarantees." To which moderator Christine Lagarde, the incoming president of the European Central Bank, responded: "So, the public takes the risk and the private takes the profits."

Green investments are proving to be less of a risk and more of a moneymaker. Solar and wind power costs have plunged so deeply that they're now the cheapest and most profitable form of new electricity in two-thirds of the world. CEOs of corporations worldwide are saving billions by cutting their plastic waste, using less, cleaner and cheaper energy and recycling.

The world will face a serious test next year. Under the Paris agreement, countries are expected to submit new, and ideally more ambitious, climate action plans every five years. The next presentations are due in 2020.

"There's an enormous gulf right now," said Kelly Levin, a senior associate at the World Resources Institute in Washington, "between current momentum and where we need to be."

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# The Climate-Change Debate Has Shifted, Not Ended



Is there still a debate over climate change? Yes and no. As a scientific matter, the issues of whether it's happening and who's to blame are long settled. But there's no end to debates about what to do about it. Arguments about the need for and costs of action are playing out against a nonstop, live-on-TV drama of the massive storms, record wildfires and deadly heat waves already fueled by global warming.

## 1. What's new in the climate debate?

For one thing, there's been a revolution in renewable energy. The price of wind and solar has plunged in a way even its most ardent backers wouldn't have dared dream 20 years ago. Bloomberg NEF projects that by 2050, renewable power will produce two-thirds of the world's electricity, the same fraction that fossil fuel produces today. The world's biggest

polluter, China, is taking far more aggressive action to reduce greenhouse gas emissions than was expected even a decade ago. A combination of slower economic growth and a drive for cleaner air have put China ahead of schedule for its emissions to peak by 2030.

## **2. How has the debate shifted?**

There's robust argument over how to balance the effort put into mitigation versus adaptation. Mitigation gets most of the attention – the headline news from the 2015 Paris climate accord, for instance, was about the pledges different countries made to limit the release of greenhouse gases. But adaptation is becoming a pressing need as temperatures rise. Some communities are already trying to relocate away from rising waters. Storm-surge barriers and flood gates geared to climate change have gone up in Rotterdam and Venice. New York installed gates after parts of the city were inundated by the surge driven by super storm Sandy in 2012, and Houston, flooded by Hurricane Harvey's torrential rains in 2017, is considering new defenses. Even steps as small as providing air conditioners for the poor can play an important role in making cities livable in a hotter future.

## **3. What's the status of the Paris agreement?**

Even though President Donald Trump intends to pull the world's biggest economy out of the accord, the U.S. is still participating in nuts and bolts discussions on implementing the voluntary pledges made by almost 200 countries. Coalitions of cities, states, businesses and universities in groups such as We Are Still In and America's Pledge have organized to keep progress going in the U.S. even if the country formally leaves the pact. (America's Pledge was co-founded by Michael R. Bloomberg, the founder and majority owner of Bloomberg LP, the parent company of Bloomberg News. He has told the New York



Times that he is considering a campaign for president.) The U.S. is currently seen as on track for its climate goals for 2020 but falling short of its longer-term pledges, as are the European Union and Japan, according to Climate Action Tracker, a research project.

#### **4. What's Trump's argument?**

Money. Trump said the Paris pact would hurt American workers and amounted to a “massive redistribution” of wealth from the U.S. to other countries. Meeting the Paris goals would conflict with his efforts to revive U.S. coal production. He's also moved to water down fuel-efficiency standards and proposed rolling back Obama-era regulations meant to force utilities to reduce emissions. Officials in his administration insist that U.S. economic growth is a more urgent priority than climate change.

#### **5. Who's agreeing with him?**

Influential groups of voters in countries where a shift away from dirty fuels has raised energy prices. In Australia, Malcolm Turnbull was pushed out as prime minister in August after conservatives in his party rebelled over his plan to write the country's Paris targets into law. Canadian Prime Minister Justin Trudeau in 2015 bowed to pressure to allow pipelines carrying carbon-heavy oil from tar sands to be expanded. Now his plan for a national carbon price to drive down emissions is under attack and is expected to be a focus for his opponents in 2019 elections.

#### **6. How much would meaningful action cost?**

It's hard to know, and there's a wide range of forecasts. The Deep Decarbonization Pathway Project, a research effort backed in part by a United Nations group, estimates that for 16 leading countries, meeting their Paris targets would require investments amounting to 0.8 percent of gross domestic

product a year by 2020 and 1.3 percent by 2050. The International Finance Corporation has estimated that the Paris accord opened up \$23 trillion in investment opportunities for government and private industry by 2030. BNEF projects that half that much will actually be spent. Developed nations have committed to boost climate-related aid to poorer countries to \$100 billion a year by 2020, including money from both public and private sources.

## **7. What are the stakes?**

Because the warming process is cumulative, if by some magic all greenhouse gas emissions stopped tomorrow, researchers predict we may still be in for 1.5 degrees Celsius (2.7 degrees Fahrenheit) of warming this century – three times as much as we’ve seen since the mid-1990s. Climate Interactive, a research non-profit, calculates that even if the Paris pledges are met, we’d blow past the target of holding warming to 2 degrees above mid-19th century levels. If current emissions levels aren’t reduced, warming could gallop past 4 degrees. Studies have projected changes ranging from more kidney stones, smaller goats and less sex in the short run, to swamped cities and widespread extinction of species in the decades ahead.

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# **Italian Alpine glacier close to collapse, officials warn**



ROME: Part of a massive glacier on the Italian side of the Mont Blanc mountain range is close to collapse after accelerated melting in the late summer heat, officials at a nearby town warned Wednesday.

This is the latest of a series of warnings about melting glaciers – in the Alps and elsewhere – as concern grows about the effects of climate change.

The mayor of the town of Courmayeur has ordered a local access road closed at night and limited access to the region below the glacier, which is popular with tourists, a town spokesman told AFP.

Town spokesman Moreno Vignolini dismissed “apocalyptic” reports in the media that it was threatening to smash down on the town itself. Below the glacier, he said, “there are no homes, only a few unoccupied chalets”.

Part of the Planpincieux glacier in the Aosta Valley is in danger of crashing into a valley running parallel to the Courmayeur valley, said Vignolini. “With the strong heat this summer, there has been between August and the first half of September, an acceleration of the melting of the glacier, at an average rate of 35 centimetres (14 inches) a day, up to highs of 50-60 centimetres on some days,”

The chunk of the glacier concerned, which makes up between a fifth and a sixth of the total and weighs around 250,000 tonnes, was threatening to break away and crash down into the valley, he added.

“There is a problem with a part of the Planpincieux glacier located at Val Ferret, which is thought to be falling due to a large fracture between the, say, stable part of the glacier and this part,” the mayor of Courmayeur, Stefano Miserocchi, told AFP.

Late on Tuesday Miserocchi ordered the night-time closure of the access road to Val Ferret, on the Italian side of Mont Blanc.

He has banned walkers from the area below the glacier, which is popular with visitors and has three mountain refuges. Experts at the Fondazione Montagna Sicura (Safe Mountain Foundation), who have been monitoring the glacier for the Val d’Aosta region since 2013, alerted local officials to the latest developments.

“This glacier is atypical because it’s temperate, and so is influenced by the temperature of the water flowing below, which particularly exposes it to the global warming in progress,” said the foundation’s secretary-general Jean Pierre Fosson.

But he cautioned against alarmism, stressing that the preventive measures taken so far were for an “unprecedented situation” for a glacier in the region.

While it might break off in a single block, it could just crumble away or not break away at all, he added.

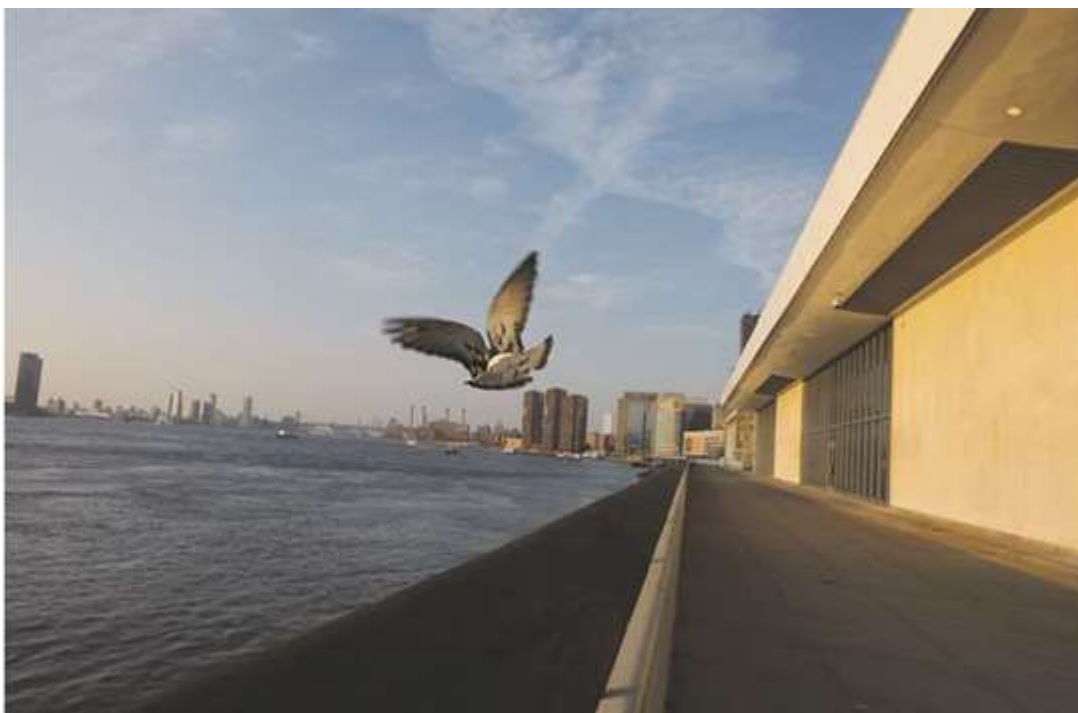
The Foundation monitors 180 glaciers in the Val d’Aosta region and this kind of thing is unavoidable, said Fosson. “Every year we see two square kilometres (0.8 square miles) of ice disappear” he said. “And it is getting worse with the increasingly hot summers and autumns.”

According to a landmark assessment approved by the 195-nation Intergovernmental Panel on Climate Change (IPCC), accelerating melt-off from glaciers and Earth’s ice sheets atop Greenland

and Antarctica are driving sea level rise. Since 2005, the ocean has risen 2.5 times faster than during the 20th century, threatening island nations and coastal cities. The rate at which the waterline rises will quadruple again by 2100 if carbon emissions continue unabated, the report found. On Sunday, dozens of people dressed in black attended a symbolic funeral march on a Swiss mountainside to mark the disappearance of an Alpine glacier on Pizol mountain. A study by Swiss researchers released earlier this month suggested that the Aletsch glacier – the largest in the Alps – could disappear completely by the end of the century if nothing was done to rein in climate change.

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## **Oil CEOs push carbon-capture efforts ahead of climate talks**



Reuters/New York

A group of 13 major oil companies charted out a plan yesterday to promote investments in carbon capture, use and storage (CCUS), ahead of a gathering in New York.

Oil chiefs grappling with growing demand for action to fight climate change have looked to invest in carbon-capture and sequestration techniques that some executives, including Occidental Petroleum Corp CEO Vicki Hollub, say could make drilling carbon neutral.

With fossil fuel development growing worldwide, the oil and gas industry faces growing criticism from activists concerned about accelerating climate impacts from melting ice caps to sea-level rise and extreme weather.

Scientists say the world needs to halve greenhouse gas emissions over the next decade to avoid catastrophic warming.

Carbon sequestration technology traps carbon in caverns or porous spaces underground.

A number of oil and gas CEOs say the technology will be crucial to meeting goals set in the 2016 Paris agreement on climate change to reduce global emissions.

"A lot of people don't even know what CCUS is. I think the world is going to hear more and more and more about it," BP plc CEO Bob Dudley said. "I don't think we can meet the Paris goals without CCUS."

The group, known as the Oil and Gas Climate Initiative (OGCI), said it aims to double the amount of carbon dioxide stored globally by 2030.

The group is also taking steps to reduce methane emissions.

The group formed in 2014 to support efforts to reduce greenhouse gas emissions.

Its gathering will be held on the sidelines of a climate summit, where United Nations Secretary-General Antonio Guterres says he is banking on new pledges from governments and businesses to abandon fossil fuels.

Last Friday, millions of young people flooded the streets of cities around the world to demand urgent steps to stop climate

change.

Many, including 16-year-old Swedish activist Greta Thunberg, have criticised governments and industries for not doing enough.

The OGCI group said in a statement that carbon-capture technologies could be expanded to more efficiently trap large amounts of carbon released by facilities such as power plants, which could then be used in oil recovery and, ultimately stored – thus, removing it from the atmosphere.

The group plans to work with others to put carbon-capture techniques into operation in the US, UK, Norway, the Netherlands, and China.

Later yesterday, , it was set to sign a declaration of collaboration with certain energy ministers and other stakeholders, to commit to efforts to expand carbon storage.

The companies, which include Exxon Mobil Corp, Chevron Corp and BP, account for 32% of global oil and gas production.

They have agreed to cooperate to accelerate reduction of greenhouse gas emissions.

Separately, almost 90 big companies in sectors from food to cement to telecommunications are pledging to slash greenhouse gas emissions, organisers said.

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**Coal may outlive climate change but can't survive the drought**





Bloomberg/Vienna

Asia's prolonged binge on coal is making the grids that transmit power to a third of the world's people brittle and prone to failure.

That's the conclusion of new research in the peer-reviewed journal *Energy & Environmental Science*.

More than 400 gigawatts of new coal-fired capacity in Asia are at risk as climate change dries out water sources necessary to cool those plants, according to the study.

"Coal power development can expect reduced reliability in many locations across Asia," Edward Byers, one of the report's authors, said by e-mail. "This is further evidence of coal power's increasingly recognised incompatibility with current international and national climate and sustainable development policy."

Summer heatwaves and reduced rainfall have been closing water-cooled power plants across the world as the impact of climate change exacerbates the nexus between water and energy supply. Asian utilities building coal plans could find themselves increasingly competing with industry and consumers for scarce water resources.

"This planned capacity adds 30% more to the existing coal-

fired generation capacity, and will engender substantial water requirements and amounts of pollutants that can exacerbate global climate change and regional air pollution,” the researchers wrote.

Thermal power generation could fall as much as 16% globally in the next three decades because of water shortages, they concluded. Researchers used hydrological and climate models as well as data from the Global Coal Plant Tracker to reach their conclusions. Different warming scenarios ranging to as high as 3 degrees Celsius (5.4 Fahrenheit) were considered. The world is currently on a warming trajectory that may hit 5 degree Celsius by the end of the century.

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## **When is change a ‘crisis’? Why climate terms matter**



By Emma Vickers New York

The discussion around changing weather is changing. Anodyne

references to “climate change” and “global warming” are being scorned by those who think it’s time for more drastic talk, and action, on the environment. They prefer more urgent terminology in hopes that it translates to more urgent action.

1. What new terms are part of the discussion?

Young demonstrators around the world are demanding that their governments declare climate “emergencies,” going so far as to skip school on Fridays to hold so-called climate strikes. The UK’s Guardian newspaper, which champions environmental issues, said in May that it was changing its house style to prefer “climate emergency,” “climate crisis” or “climate breakdown” over “climate change” (as well as “global heating” over “global warming”). Editor-in-chief Katharine Viner said “climate change” sounds “rather passive and gentle when what scientists are talking about is a catastrophe for humanity.”

2. Is it showing results?

Maybe. In a poll by the Washington Post and the Kaiser Family Foundation, 38% of US adults termed climate change “a crisis,” while an equal number called it “a major problem but not a crisis.” The Democratic leadership of the US House of Representatives this year established a Select Committee on the Climate Crisis, which aims, by March 2020, to publish a blueprint for keeping the gain in the Earth’s temperature to less than 1.5 degrees Celsius (2.7 degrees Fahrenheit). When Democrats last held a majority in the House, in 2007, they created a similar committee but called it the Select Committee for Energy Independence and Global Warming. It was abolished when Republicans regained control of the House in 2011.

3. Isn’t this just semantics?

Literally, yes. And it could be argued that much more tangible steps are being taken: With a changing atmosphere already upon us, use of electric cars is growing, renewable energy is already cheaper than coal in many places (and is becoming cheaper), many investors are uprooting carbon from portfolios and more and more people are eating less meat. But activists

argue that stronger words can focus attention on the planet in a new way, and that rallying cries can prompt corresponding action.

4. What sort of action?

By mid-2019, local and national governments representing 206mn people had declared “climate emergencies,” according to the Climate Emergency Declaration Petition, a campaign group. It says in most cases, that means the government commits to develop an action plan within six months. The student climate strikers who advocate use of “emergency” want governments to commit to switching to 100% renewable energy as soon as possible, preferably by 2030.

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## **California weighs plan to save tropical forests**



By Julia Rosen /Los Angeles Times

The smoke is still rising from the Amazon as fires smoulder in the world's largest rain forest. The blazes triggered a wave of global outrage over the loss of precious trees. But California says it has a plan to keep tropical forests standing.

This week, state officials will consider a proposal to protect these forests by steering billions of dollars to countries such as Brazil. The money would fund government efforts to fight deforestation and promote sustainable industries that don't involve chopping down and burning trees. And it would come from companies that offset their own emissions by purchasing carbon credits through markets such as California's cap-and-trade programme.

Preserving tropical rain forests is essential to combating climate change – around the world, roughly a third of the greenhouse gases released each year come from clearing forests. And backers say this plan is the best way to funnel much-needed cash toward that crucial task.

Others agree on the pressing need to halt deforestation, but they say California's plan is a dangerously misguided way to do it. In their view, it would simply allow polluters to keep on polluting without doing anything about the true drivers of forest loss: rising demand for products such as beef, soy and palm oil.

The issue has divided scientists, environmental groups and indigenous leaders who say the Tropical Forest Standard, or TFS, has ramifications far beyond the Golden State. California is a leader on climate change, and approving the TFS could inspire other states, countries and companies to adopt a similar approach.

"This is a critical moment," said ecologist Christina McCain, who heads the Environmental Defense Fund's climate initiatives in Latin America. "The world is watching."

The TFS wouldn't be the first attempt to fund forest protection through carbon offsets. Several international programmes have employed them as a way to preserve and restore forests while lowering the cost of reducing emissions in

wealthy countries and funding sustainable development in poorer ones.

Some of these projects succeeded, but others never came to fruition, leaving the fate of the carbon they promised to store in limbo. Many also spelled disaster for people who live in the forest.

Indigenous groups fell prey to unscrupulous “carbon cowboys” who used questionable methods to secure the rights to native land – and its potentially lucrative carbon. People were kicked out of their territories by governments eager to launch conservation projects without local interference.

In any event, the programmes never attracted enough money to reach their intended scale, said Louis Verchot of the Center for International Forestry Research, who has studied previous initiatives.

“It wasn’t what you would call a real enabling environment,” he said. “That’s where things are stuck right now.”

Can the Tropical Forest Standard do better? Its backers certainly think so. They’ve spent the last decade trying to learn from past mistakes.

The TFS lays out criteria for certifying state, provincial or national governments that want to sell forest offsets, leaving no room for carbon cowboys. Participating governments must commit to reducing deforestation, and they’ll only receive credit for the forest they spare beyond their baseline goal.

Plans must be posted publicly, and progress must be closely monitored and independently verified.

“There will be a ton of eyes on it,” said Jason Gray, the head of California’s cap-and-trade programme.

Governments also have to prove that local stakeholders – especially indigenous groups – have a say in the programme and stand to benefit from it. The Brazilian state of Acre, which has spent years developing partnerships with tribes, is often cited as a model.

“Indigenous peoples are very well-informed and prepared not to let their rights be violated,” said Francisca Oliviera de Lima, a member of Shawadawa People who works at Acre’s state-

run Climate Change Institute. "We are in favour of this California programme."

The TFS tries to address other problems, such as leakage, which occurs when suppressing deforestation in one place simply pushes it elsewhere. That would be difficult to get away with in a state that's part of the programme, said Steve Schwartzman, senior director of tropical forest policy at EDF, a leading supporter of the TFS.

In addition, the TFS mandates that participating states and provinces pony up extra credits as insurance, in case fires or other natural disasters accidentally release carbon that was stored for offsets.

With these safeguards in place, proponents argue the TFS could finally allow real money to flow toward fighting deforestation. Today, less than 1.5% of funding to fight climate change goes to forest protection, according to a new analysis by a coalition of scientific organisations and environmental groups.

That has bred frustration in countries such as Brazil, where the government had reduced deforestation by upping enforcement of protected areas but where low levels of investment have failed to create new economic opportunities for farmers, loggers and miners who obeyed the rules, said Dan Nepstad, executive director of the Earth Innovation Institute.

With the TFS, offset money could fund things such as community centres, fish ponds for aquaculture and government programme to support sustainable farming practices.

For California, the reward is the chance to drive greenhouse gas reductions far beyond what the state could accomplish at home, Nepstad said: "The TFS lays out the framework for magnifying that tenfold."

Critics of the TFS object to almost everything about it, starting with the very idea of offsets.

He and other opponents say California's cap-and-trade programme already relies too heavily on offsets – polluters can use them to cancel up to 8% of their emissions in the state – and argue that the TFS would take things even further



in the wrong direction.

Chief among their concerns is the legitimacy of tropical forest credits.

Barbara Haya, who studies offset programmes at the University of California, Berkeley, worries that leakage will still be a problem, since activities shut out of a participating state can still shift to other states or countries.

It's also hard to ensure that the programme will dole out credit only for carbon savings that wouldn't have happened anyway. Haya examined two decades' worth of data and found that a quarter of potential partners would have been able to generate offsets under the TFS's rules due to declining deforestation rates, even though their progress clearly wasn't due to the programme (it didn't yet exist).

Then there's the fear that, despite the TFS's insurance provision, the carbon that was supposed to offset a polluter's emissions will end up in the atmosphere eventually, either in a bad fire season or after a change in political leadership reverses a country's deforestation policies.

Others contend that the TFS is based on flawed economic reasoning. So far, the price of carbon offsets on exchange markets is just too low to compete against the forces of global commerce, which make land more valuable than trees, said Tracey Osborne, a geographer at the University of Arizona.

And while advocates for indigenous communities applaud the TFS's social safeguards, some of them say it will be nearly impossible to ensure they are being honoured from afar.

Governments in many tropical countries have a long history of corruption, said Alberto Saldamando, an advisor to the Indigenous Environmental Network. He worries the TFS will only heighten the incentive to coerce or threaten indigenous groups to participate in programmes that don't always serve their interests.

"Carbon, instead of being a poison, is a value, and that perspective leads to all kinds of abuses," he said.

Opponents raised all these issues last fall, when California's

Air Resources Board first met to consider the standard. It opted to delay a vote and asked legislators to gather input from both sides. If the board endorses the standard when it meets on Thursday, it won't mean that credits generated under the TFS will be used in the state's market right away; governments that want to participate would first have to qualify, and then CARB would have to decide whether to accept tropical offsets, Gray said. The motivation to propose the standard now is "to set a very high bar" for forest offset programmes in general, he said.

Regardless of whether California ever uses the TFS in its own cap-and-trade programme, CARB's approval would be a powerful endorsement of forest offsets and a setback for efforts to zero out greenhouse gas emissions, opponents said.

Critics would rather see the state focus on other strategies for preserving forests, such as empowering indigenous groups to protect their lands and pressuring companies to rid their supply chains of goods associated with deforestation. (California lawmakers are considering a bill that would require government contractors to do so.)

Haya and more than 100 other researchers laid out their objections to the TFS and submitted them to CARB. Last month, senator Bob Wieckowski, D-Fremont, released his own letter imploring the board to reject it.

But supporters are speaking up, too.

In June, four Assembly members encouraged CARB to approve the standard as long as it commits to "vigorous and proactive monitoring" of any government that uses it. More than 100 scientists also penned an open letter endorsing the TFS. –

Tribune News Service

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# Germany Inc waits on Merkel's CO2 plan: Here's what's at stake



Bloomberg Berlin/Frankfurt

Chancellor Angela Merkel is working on an investment package worth perhaps €50bn (\$55bn) that aims to get German efforts to cut carbon emissions back on track.

Merkel's Christian Democrats are trying to thrash out a common position with their coalition partners, the Social Democrats ahead of a cabinet meeting on September 20. The outcome of those negotiations will have profound consequences for a range of companies from utilities to airlines as well as the chancellor's increasingly controversial balanced budget.

Germany is way behind on its climate efforts and saw a series of protests this year demanding more action to stem emissions and another demonstration is scheduled for Saturday in Frankfurt. With wildfires sweeping the east of the country and record temperatures disrupting summer travel, the governing parties were punished in local elections as support for the

Greens surged.

While opinion polls show that climate change has surpassed immigration as the German public's No 1 concern, the government abandoned a self-imposed target to lower CO2 emissions by 40% from 1990 levels by next year. After struggling to rein in coal-fired power generation, emissions will be just 32% lower in 2018 and Germany risks missing its legally binding EU goals.

Coalition strains

The coalition parties know they need to step up their climate action, but they don't agree on how much or how fast.

The SPD want more aggressive measures, such as a carbon tax and new debt to finance climate projects. Merkel's CDU favours market mechanisms such as the Emissions Trading System, which lets companies buy or sell their carbon allowances. The CDU also wants to tap private capital more heavily to help finance the measures.

The plans announced so far would be enough to derail Merkel's prized balanced budget if the government ended up footing the bill and Sueddeutsche Zeitung reported on Friday that the program could stretch to as much as €75bn.

That's why CDU Economy Minister Peter Altmaier is proposing an investment fund seeded with €5bn of government money. To lure investors and win round the German public, he wants to guarantee a 2% return – that's more than you make from a 10-year Greek bond.

But SPD Finance Minister Olaf Scholz, who's looking at a possible campaign to succeed Merkel, doesn't like the idea and his party has threatened to bring down the government if it doesn't get something it likes.

C-Suite winners and losers

For German executives, there's a lot riding on the outcome. Electricity producers like EON SE and RWE AG could benefit if the policies encourage households to ditch gas heating and diesel cars in favour of electric options. Firms that use a

lot of electricity could also benefit, as well as companies that make electric heaters, cars and energy-efficiency products like smart meters.

Firms that can't easily cut CO2 emissions out of their business model are likely to lose out. While companies like Thyssenkrupp AG and Volkswagen AG already have sweeping carbon-reduction strategies, dialysis machine-maker Fresenius emitted 1mn tonnes of carbon dioxide last year and doesn't yet have a goal to significantly reduce that.

If the CDU plan to impose a trading scheme instead of a carbon tax wins out, that would give the government flexibility to help out companies and consumers when the economy slows. Officials could increase the supply of the emissions permits during a recession to lower costs for companies, or cut supply during a boom.

#### Cheap air travel

Merkel's Bavarian sister party, the CSU, is proposing a minimum price on airline tickets and all the parties have signalled they'd like to see airfares rise. That could actually benefit Germany's flagship carrier Deutsche Lufthansa AG. Europe's biggest airline is fighting off low-cost challengers like Ryanair, Easyjet and Wizz Air, and its budget unit, Eurowings, is losing hundreds of millions in euros as it tries to match their bargain-basement fares.

A price floor would be easier for Lufthansa to absorb than for the low cost carriers whose business strategy centres on having aircraft more than 95% full. Indeed, Lufthansa chief executive officer Carsten Spohr has called for an end to loss-leading fares that he said are stoking demand for needless flights that raise pollution and make the industry an easy target for climate campaigners.

"You only have to look at what happened when the first 2011 aviation tax in Germany was introduced," Ruxandra Haradau-Doeser, head of airline research at Kepler Cheuvreux, said. "Ryanair cut capacity by one third."

The CSU also wants to cut the taxes on rail travel.

## Europe's climate fight

Merkel wants something to show abroad as well.

Her climate decision comes three days before UN Secretary-General Antonio Guterres holds a summit in New York to encourage countries to make good on their commitments under the Paris Climate Accord and to make their goals more aggressive. Berlin's renewed push dovetails with efforts by Ursula von der Leyen, the incoming president of the European Commission, to focus attention on the climate. Von der Leyen, who previously served as Merkel's defence minister, wants to make Europe the first climate-neutral continent by 2050.

German plans to put a price on emissions from transportation and heating is in line with von der Leyen's plan to extend the EU carbon market, the biggest in the world, to cover transport and construction.

But more broadly, von der Leyen and Guterres need Germany to deliver. If Europe's biggest emitter can't meet its goals, the EU is unlikely to either. And that would be a disaster for the global push to limit climate change.

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# Deforestation



By Eric Roston New York When it comes to saving the world's rainforests, governments can make a big difference, and fast. Take Indonesia, which in 2012 surpassed Brazil as the world's leader in tropical rainforest destruction. In 2017, it engineered a 60% drop in tree loss from the previous year by strictly enforcing protections in vulnerable regions. On the other hand, governments can reverse course just as swiftly. Take Brazil, where a decade-long trend of improving forest protections has now gone into reverse. It's a concern both in and beyond the tropics, with multinational companies coming under increasing pressure to stop doing business with suppliers that ravage the environment. Rainforests host half the species on Earth, help regulate global weather patterns and produce much of the planet's oxygen. Their disappearance, through burning or felling, creates about 10% of the greenhouse gases the world produces in a given year that drive climate change.

By one estimate, more tropical tree cover was lost globally in 2016 and 2017 than in any other years this century. The Situation A handful of nations are the guardians of the world's rainforests, with Brazil home to one third and roughly 15% shared by Indonesia and the Democratic Republic of Congo.



Critics blame Brazil's relapse on the rollback of environmental protections and enforcement in the Amazon in recent years. One analysis pointed to an 84% year-on-year increase in forest fires to record levels in 2019, many caused by loggers incentivised by the government's disdain for environmental oversight. Brazilian leader Jair Bolsonaro, who relishes criticism of his attitude toward the Amazon and jokingly refers to himself as "Captain Chainsaw," is facing a backlash from trading partners including Germany, Norway and the European Union. In Congo, agriculture, logging and energy projects pushed deforestation to record levels in 2017. The global bright spot was Indonesia, where authorities imposed a moratorium on developing peatlands, carbon-rich areas where the tree canopy shields waterlogged soil. When cleared, peatlands are drained, leaving a vast area of tinder that can smolder under the ground for years. Combined with better educational campaigns and stricter law enforcement, the moratorium cut primary forest loss to the lowest level in 14 years, notwithstanding setbacks in Sumatra, an island that's home to endangered tigers and orangutans. Tree loss declined yet further in 2018.

**The Background** Although tropical deforestation rates have dropped by more than a third since the 1990s, rainforests remain on course to disappear in about a century. The 2015 Paris agreement to fight climate change recognised forests as part of the solution to curbing carbon emissions. Rainforests absorb prodigious amounts of carbon dioxide and store it in trees, other plants and soil. Forest fires in Indonesia in 2015 pumped out more greenhouse gases than the entire US economy. Tropical deforestation continues mostly because people, both near and far, demand timber as well as commodities – typically soy, palm oil, and beef – that flourish where forests get in the way. Indonesia, for example, delivers about half the world's \$50bn palm- oil crop each year. It's cheaper than other vegetable oils, widely used in products from mayonnaise to makeup and a route out of poverty for farmers. Hundreds of international companies have pledged to clean up their supply chains, sourcing commodities only

from producers certified as having sustainable practices. The Argument Climate scientists say that preserving rainforests, and restoring former forested land, represents a relatively straightforward and economical way to meet climate change targets. Such measures, they estimate, could help bring humanity about one-third of the way to the Paris goal of limiting warming to below 2 degrees Celsius (3.6 degrees Fahrenheit). Environmentalists argue over the best approach, but targets and protections have proven most effective only when strictly applied. On-the-ground strategies include removing roads into sensitive areas or paying rural and indigenous communities to maintain habitats. Activists urge rich nations to follow Norway's lead and offer incentives to countries to curb forest loss (and to withdraw them if necessary).

Conservation groups say Corps should step up, for instance by including environmental audits in their financial reporting. They are pressing for better systems to certify producers of sustainably grown commodities; these make it easier both for companies to avoid illegal operators and consumers to make eco-friendly choices. There's some way to go: A 2018 survey by environmental group Greenpeace found that all 16 multinationals surveyed either failed to publicly identify their palm-oil suppliers or used producers that harmed rainforests.