

Focus on Exxon, Chevron after BP pledges to be carbon neutral



BP's pledge to zero out all its carbon emissions by 2050 deepens the divide between major European and American oil producers on climate change, increasing the pressure for Exxon Mobil Corp. and Chevron Corp. to do more.

The U.S. giants have committed only to reducing greenhouse gases from their own operations. On Wednesday, BP followed Royal Dutch Shell and Equinor in pledging to offset the carbon emissions from the fuels they sell. Known as Scope 3, the emissions from cars, homes and factories are responsible for 90% of fossil fuel pollution.

"If we do see capital flowing into BP, that may force the U.S. majors to rethink the speed at which they move on carbon reduction targets," said Noah Barrett, a Denver-based energy analyst at Janus Henderson, which manages \$356 billion.

The growing outcry against human-made global warming is

increasingly making its way into mainstream business and investment strategies. It has already reshaped the way European oil producers operate by actively engaging in the transition to cleaner energy sources.

Exxon and Chevron agree with the goals of the Paris Climate Agreement, support a carbon tax and are committed to cleaning up emissions from their vast network of wells, refineries and pipelines. They joined the Oil and Gas Climate Initiative later than their European rivals but are still fully paid-up members. They even lobbied against President Trump's plan to roll back Obama-era emission standards.

But the fundamental difference with European peers is that neither has any plan to allocate a chunk of their multibillion-dollar capital budgets toward proven low-carbon energy sources where they have no competitive advantage. The chief executives of both companies said last year that they remain committed to their core oil and gas businesses and have no plans to chase the crowd into lower-margin renewables such as wind and solar.

That puts them in an increasingly isolated position when compared with BP and Shell, whose executives have vowed to lead the energy transition.

BP went further than any other oil giant by pledging to become net zero, meaning it's aiming to completely offset its emissions with renewable energy. Spain's Repsol recently made a similar commitment.

Even so, environmentalists shouldn't get their hopes up. "I don't see Chevron or Exxon adopting a BP-like strategy in the near future," Janus' Barrett said. "The U.S. majors have historically been less aggressive in their shift away from traditional oil and gas."

When asked about potentially following Shell into the power sector, Chevron CEO Mike Wirth was clear.

"It's a business we haven't chosen to go in," he said in a February 2019 interview. "And it's inherently lower-return than the other things we could invest money in."

Chevron is investing in early-stage technologies that could aid carbon capture and energy storage, but they are small fraction of its budget.

Effectively reducing Scope 3 emissions requires a combination of well-designed policies and carbon pricing mechanisms, Chevron said in a response to questions. Exxon said Scope 3 emissions are not within its direct control, but rather a function of energy demand and consumer choices.

Exxon CEO Darren Woods sees the answer to climate change as essentially a technology problem that has not yet been solved.

The oil giant is working on proprietary technologies that would reduce emissions in areas such as aviation, heavy-duty vehicles and industrial processes. "We can bring more value in the space where we don't know what the solution is but we need one," Woods said in an April interview.

This approach probably will come under attack at this year's round of annual general meetings in May. Both companies are being asked by Dutch activist shareholder group Follow This to align their strategies with the Paris agreement. Exxon is asking the Securities and Exchange Commission to exclude the proposal from the ballot, arguing it "seeks to micromanage" the company.

Chevron shares rose 0.7% on Wednesday. Exxon shares climbed 1.2%.

Energy markets need winter, and climate change is taking it away



Even before the deadly virus struck, another menace confronted the global energy industry: the warmest winter anyone can remember. Russia's winter was so balmy that snow was trucked into downtown Moscow for New Year, and bears came out of hibernation. In Japan, ski competitions were cancelled and the Sapporo Snow Festival had to borrow snow. On the shores of Lake Michigan, Chicago residents watched playgrounds and beaches disappear under the waves as warm weather swelled the water level. Norwegians basked in T-shirts in January. London's spring daffodils have already flowered.

For global energy markets it's a disaster – and as the world continues to get hotter it's something producers, traders and government treasuries will have to live with long after the

acute dislocation of the coronavirus has passed. The industry relies on cold weather across the northern hemisphere to drive demand for oil and gas to heat homes and workplaces in the world's most advanced economies. Climate activists might find a certain poetic justice in energy markets suffering from the global warming caused by fossil fuels. Burning oil and other fuels to heat homes and businesses accounts for as much as 12% of the greenhouse-gas emissions blamed for raising the world's temperatures. The loss in global oil demand due to mild temperatures is probably about 800,000 barrels a day in January, according to Gary Ross, chief investment officer of Black Gold Investors LLC and founder of oil consultant PIRA Energy. That's the equivalent of knocking out Turkey's entire consumption. The natural gas market has taken a similar hit. "The oversupply keeps coming and winter so far hasn't really showed up," said Ron Ozer, chief investment officer of Statar Capital LLC, an energy-focused hedge fund in New York. Last month was the hottest January ever in Europe, the Copernicus Climate Change Service reported. Surface temperatures were 3.1 degrees Celsius (5.6 degrees Fahrenheit) warmer than average. Northern Europe was particularly hot, with some areas from Norway to Russia more than 6 degrees above the 1981- 2010 January average. Temperatures in Tokyo took until February 6 to hit freezing point, the latest date on record. Globally, the last five years have been the hottest for centuries, as greenhouse gases change the Earth's ecosystem. Natural gas prices have collapsed globally as the weather crimped the need for heating. US futures are trading at the lowest levels for this time of the year since the 1990s. Asian spot prices for liquefied natural gas have crashed to a record low as demand slumps in the world's three biggest importers- Japan, South Korea and China. Based on weather-driven demand data, the US and Asia are having their warmest winters on record and Europe is having its second warmest, according to Joe Woznicki, a meteorologist for Commodity Weather Group LLC. A key measure of heating demand, known as heating degree days, is 12% below the 10-year average in the US, 14% lower in Asia and 13% in

Europe. And it's not just markets that are reeling. It's also an issue for government treasuries. Russia, for example, relies on its oil and gas companies for around 40% of budget revenues. Oil exports have been holding steady, but gas exports are dropping. Sergei Kapitonov, gas analyst at Moscow-based Skolkovo Energy Center, estimates Gazprom's exports to Europe and Turkey fell in January by about a quarter from a year earlier. Gazprom stock is down 11% this year. The collapse in oil prices – spurred by the coronavirus but pushed along by the warm weather – prompted a push to urge Opec+ allies for a production curb last week. Three days of wrangling in Vienna didn't produce a clear result. From Algeria to Venezuela, similar dynamics are in play. This year's especially warm winter was triggered by events in the Arctic. An intense weather pattern there kept the cold locked in the Arctic region, leaving North America and Eurasia relatively mild. "When the winds are stronger they act as a barrier to keep Arctic air focused over the pole and keeps them from spilling southward," said Bradley Harvey, a meteorologist with Maxar in Gaithersburg, Maryland. "That is likely to continue for the balance of the month and even into March." Rain patterns have also been unusual – and that's added to volatility too. In Norway, the biggest source of electricity comes from running water through turbines. The wettest January since records began turned a deficit of water in reservoirs in December to a huge surplus in January – and sent prices crashing in the Nordic power market. The abnormal winter could hardly have come at a worse time for the US gas market, which is already suffering a glut. US shale drillers have delivered two years of unprecedented production growth and in the Permian Basin of West Texas and New Mexico there's so much gas – the byproduct of drilling for oil – that producers are even paying to get rid of it. Europe and Asia were set to become important export outlets for American gas. Then the weather changed. "It's unfortunate that we're making all this LNG that's not worth very much around the world," Corey Grindal, senior vice president of supply at Cheniere

Energy Inc, said.

Norway to set new limit for Arctic oil drilling



OSLO (Reuters) – Norway may restrict oil firms' access to offshore resources in the Arctic by moving the so-called ice edge, a line that sets a legal limit on the extent to which companies can go north in search of oil. The ice edge is a legally drawn boundary that is meant to approximate the constantly changing southern fringe of the permanent ice sheet. Anything north of that legal line is off-limits to oil drilling under Norwegian law.

However, instead of redrawing the line further north to reflect the retreating ice sheet, the ruling coalition may

move it further south as it responds to political pressure to extend environmental protection of the Arctic.

The ice cover in the Barents Sea has halved over the past 40 years. In practice, it would be ice-free year-round by 2050 given the current trend, Tor Eldevik, a professor at the Bjerknes Centre for Climate Research at the University of Bergen told Reuters.

"It's one of the difficult issues (for the government to decide on)," Prime Minister Erna Solberg told Reuters in an interview.

"The ice cap is moving, it's been moving upwards ... You can't measure it every year, so you have to put the line, and have a discussions where that line would have to be."

"If you take it too far down then it would cross some areas that are already being explored."

The centre-right minority government has been reviewing the ice edge boundary and is due to present its new demarcation line to parliament in April. It has already received recommendation from an advisory group of Norwegian research institutions and state agencies, which have presented two options.

One would be to draw the line where the sea ice appeared at least 30% of the time in April, the peak month for the Arctic ice sheet in the Barents Sea, between 1988 and 2017.

That would place the line further north than today, as the current line, set in 2006, was based on sea ice observations from 1967 to 1989.

The other option is to draw the line at where sea ice probability is only 0.5%, in order to protect the Arctic environment. This would place the line further south and would be problematic for oil and gas companies, Norway's biggest

industry.

It would affect at least eight oil exploration licenses operated by Equinor, Aker BP and Spirit Energy, majority owned by Britain's Centrica, the Norwegian Oil and Gas Association (NOG), a lobby group, said.

It would also come close to the Wisting discovery estimated to hold 440 million barrels of oil. Equinor plans to develop the discovery together with OMV, Idemitsu Petroleum and Petoro, a Norwegian state-owned firm.

"The sea ice influences the ecosystem that lies further south ... and this is why some think that it should be further south than it has been before," said Cecilie von Quillfeldt, a senior adviser at the Norwegian Polar Institute.

The NOG is proposing a third option: to use a "dynamic" ice edge definition, meaning that the line would move along with observable sea ice, and is not set as "a static and politically determined line on the map".

Lawmakers Reuters spoke to said the most likely deal would be moving the line further south than now, but without affecting oil licenses already granted to companies.

"None of the extremes would gain enough support. The line would be put somewhere in the middle," Lene Westgaard-Halle, a Conservative lawmaker on parliament's energy and environment committee, told Reuters.

An opposition lawmaker, speaking on condition of anonymity, said such a compromise would be acceptable.

However, pro-green lawmakers in all parties are enjoying popular support and could be successful in pushing for the ice edge definition that goes the most south.

Waters close to the ice sheet are important feeding grounds for many Arctic species, from tiny zooplankton to polar bears

and whales. At the same time, the Barents Sea may contain two-thirds of the oil and gas yet to be discovered off Norway, according to Norwegian official estimates.

Meet the First (And Only) German City to Commit to 'Zero Waste'



Germans are world leaders in recycling, but one city has decided more needs to be done to protect the environment.

Kiel, a Baltic port known for its annual sailing regatta, last year became the first – and so far only – German municipality to sign up to the global “Zero Waste” initiative.

The ambitious goal of the city of nearly 250,000 is to eliminate waste, conserve and recover resources and not burn or bury them. It's a recognition that waste management, anti-incineration, and reduced plastic production are vital to efforts to reduce the greenhouse gas emissions blamed for global warming.

"On the one hand, we are world champions at separating rubbish, but on the other the creation of plastic waste has not declined in any way, quite the contrary," said Andreas von der Heydt, head of Kiel's environmental protection agency.

"That means we really need to think about how we can avoid waste creation in the first place," he said, citing "quite shocking" data showing surging global waste production.

Waste Generation Is Rising Globally

The "Zero Waste" concept has been around for almost two decades, even if it has taken more time to catch on in Germany than other countries. The subject was on the agenda at the World Economy Forum in Davos this month and firms such as Adidas AG and Unilever, as well as asset management giant BlackRock Inc. are embracing it.

The European Union adopted a "Circular Economy Package" in December 2015 designed to push member states away from a "take, make, use and throw away approach." Last year, the bloc said that in 2016 alone, activities such as repair, reuse or recycling gave a boost worth almost 147 billion euros (\$162 billion) to the economy and generated some 17.5 billion euros of investment.

The flow of materials accounts for more than half of emissions in OECD countries and reducing waste could help achieve the target of limiting temperature increases in the atmosphere to below 1.5 degrees Celsius, Zero Waste advocates say.

Other German cities are considering following Kiel's lead. Munich Mayer Dieter Reiter said in October he wants the Bavarian capital to pursue Zero Waste "in the not too distant future." Germany has a good deal of catching up to do. Around 300 municipalities in Italy, where Zero Waste Europe has its origins, have signed up, along with about 100 in Spain.

"We've all got those pictures of plastic-filled oceans in our heads," Reiter said. "That's why I wanted to know, as mayor, what we can do to in concrete terms to prevent waste from being generated in the first place."

A European Environment Agency report published last week said that there is "still a long way to go to turn Europe into a truly circular economy" and it will require "long-term involvement at all levels, from member states, regions and cities, to businesses and citizens."

Waste Generation

Germany generates more waste per capita than the EU average

Kiel, the capital of the region of Schleswig-Holstein, which is run by a coalition of Chancellor Angela Merkel's Christian Democrats, the Greens and the Free Democrats, is attempting to rise to the challenge, helped by federal government funding. Von der Heydt said a detailed action plan will be presented to the city administration for approval in April.

As well as trying to change people's consumption habits, measures will include efforts to reduce packaging in stores and promote second-hand markets for things like furniture, textiles and construction materials.

Kiel has benefited from a know-how sharing partnership with San Francisco, an early convert to the "Zero Waste" concept, and advice from Germany's Wuppertal Institute, which conducts research on sustainable development. Zero Waste Europe, which

gets most of its funding from the EU, will oversee the city's progress.

Von der Heydt said Germany has been relatively slow in adopting Zero Waste policies probably because of a widespread belief that enough is already being done through existing recycling programs. At 68%, Germany has the highest rate of recycling for municipal waste, according to the most-recent data, well above the EU average of 46%.

Waste Recycled

Germany has the highest recycling rate in the EU

(Latest data available for municipal waste recycled and composted are for 2017)

"Many people believe that our waste system in Germany is already very well developed and that it's enough to maintain the status quo," Von der Heydt said by telephone. "The system we have is such that it's difficult to change tack in the short term."

Jack McQuibban, cities program coordinator at Brussels-based Zero Waste Europe, said that many administrations need waste to feed incinerators to generate heat or energy – and a profit – for the local community.

"We need to challenge this idea that incineration or zero waste for landfill is actually zero waste. It's not," McQuibban said. "We haven't been able to grow as much in Germany perhaps because of that and there's a real opportunity there."

– With assistance by Brian Parkin

Outgoing BP CEO warns of moving too fast on climate change



BP Plc's outgoing Chief Executive Officer Bob Dudley warned Big Oil of moving too fast on investing in new technologies to counter climate change, because their failure could lead to financial ruin.

"If you go too fast and you don't get it right you can drive yourself out of business," Dudley said in a Columbia Energy Exchange podcast with Professor Jason Bordoff.

Oil companies must retain a strong financial footing to be able to invest when game-changing technologies are developed, he said. In the early 2000s, before his tenure as CEO, BP

invested heavily in solar technology only to write off much of the spending.

"If we understand where the technologies are going and we invest, the best thing we can do strategically is have a strong balance sheet. When it becomes really clear certain technologies are going to move very quickly and be profitable, then we'll be able to make that shift."

Here are other select quotes from the interview:

On Big Oil's role in the energy transition:

BP, Exxon Mobil Corp., Royal Dutch Shell Plc, Chevron Corp and Total SA are "only responsible for producing about 8% of the world's oil. If we were all driven out of business that oil would still be produced" by national oil companies and other countries.

"We want to be leaders in this and we do enormous amount as companies" such as in developing technology and reducing emissions from their own operations. But "we're not the epicenter of these issues."

On BP's dividend:

"I meet with shareholders and they say 'we would like you to move really quickly into renewables.' I say, 'we can do that, would you like us to cut the dividend?' They go, 'no, no, don't do that.' We've got to find the right balance and pace here."

Tears flow as politicians fail to dispel 'climate darkness'



Standing before a captive audience at this month's climate change conference in Madrid after entertaining them with a dance in her traditional Pacific island costume, 21-year-old Tabita Kaitamakin Awira Awerika's smile turned to angry tears. The student from Kiribati spoke of her anguish at the threat to her low-lying atoll nation from rising sea levels and ferocious storms – and the determination of her people not to let global warming chase them from their "beloved motherland". "I am very sad to say that as the youth of many developed nations are enjoying their daily activities, our fellow youth in Kiribati are worrying about what the future holds for us," she told an event on the sidelines of the UN talks.

"My leaders have voiced these concerns to the global community over and over but no one is listening – are we that insignificant for our cries to fall on deaf ears?" Emotional exhortations like this are being heard more often at the annual climate summit, especially from young people, as

climate change fuels extreme weather, glaciers melt, and the world's oceans creep inexorably higher.

In Madrid, veterans of the “COP” meetings – known as a place where suited officials spar over complex agreements – said they had never seen such an outpouring of grief, anxiety and sorrow.

Bill Hare, founder of climate science think-tank Climate Analytics, told US news show “Democracy Now!” he had seen more tears in Madrid than at the previous 24 summits, dubbing it “the crying COP”.

Representatives of small island states were “almost panicking” at the prospect of their homelands disappearing under the waves, while young people were “angry and upset” at a lack of action by politicians, he said.

During two fractious weeks of talks, a handful of major polluting states resisted pressure to ramp up efforts to combat climate change, angering smaller countries and a growing protest movement that is pushing for emergency action. The climate change talks have experienced a “big shift” away from formality in recent years, said Ashlee Cunsolo, director of the Newfoundland-based Labrador Institute of Memorial University and an expert on “ecological grief”.

Tuvalu negotiator Ian Fry grabbed the world’s attention at the 2009 Copenhagen talks by saying he had woken up crying, telling delegates tearfully, “the fate of my country rests in your hands”.

At the 2013 talks, Philippines negotiator Yeb Sano made headlines when he broke down speaking of the destruction wrought on his country by Typhoon Haiyan.

Cunsolo told the Thomson Reuters Foundation people were increasingly “refusing to separate science and feeling”. “More and more, they are not embarrassed and not ashamed to share the emotions they are experiencing around these changes,” she said.

One key driver is rising exposure to climate and weather-linked disasters, whether Australia’s bushfires, flooding in the United States or Hurricane Dorian in the Bahamas, she

added.

And then there are communities experiencing longer-term deterioration in their native environments, including Canada's Inuit, who are struggling with losing the ice and what that means for their hunting-based lifestyle and food security.

"The lived experience that people have and are sharing publicly on social media and in media articles has so far outstripped the research that we have," said the academic who co-authored a study on the subject, published in April 2018.

The paper identified "ecological grief" as "an underdeveloped area of inquiry" and warned it could "become more common as climate impacts worsen".

Yet while community groups have sprung up to help people cope with their feelings, and some health professionals are developing guidelines on mental health and climate change, efforts to quantify and tackle the phenomenon are lagging behind, Cunsolo and others said.

"If people don't hear about it, and don't talk about it, and it only grows within, then that is a recipe for disaster," said Pablo Suarez, associate director for research and innovation at the Red Cross Red Crescent Climate Centre.

At a parallel event in Madrid, he ran a workshop introducing development professionals to the concept of "climate darkness" – a term he prefers to "grief" which points to something that has already happened and is not a springboard for action, he said.

"A little bit of light can undo darkness," he said. "Emotional pain is a signal: these tough times are full of opportunities for heroic generosity and proactive humanitarian deeds."

As a global network of volunteers, the Red Cross is aware of the stress climate-related crises put on its humanitarian workers, as well as those directly affected, and plans to start providing better psychological support for them, Suarez said.

Cunsolo, meanwhile, said she and colleagues want to conduct a national survey across Canada next year, with a focus on vulnerable groups like farmers and indigenous people, with the

aim of producing data that can be useful to decision makers. In drought and fire-hit Australia, researchers are planning a similar effort, she noted.

Suarez, who has devised games and worked with cartoonists to help people understand climate risk, said one reason why major climate change events like the COP fell short of public expectations was that they are “devoid of inspiration”.

“Why are COPs designed to discard the emotional richness needed to make us aim for more? Yes, climate negotiations are deadly serious, but they shouldn’t be deadly tedious,” he added, calling for an injection of art and humour.

In the absence of a collective push to act, however, the prospect of a ruined planet can lead to sadness and paralysis, he noted.

In Madrid, Marie Christina Kolo, a young eco-feminist from Madagascar, welled up as she spoke of village girls being pushed into early marriage because their parents could no longer earn enough from fishing in the African island nation’s warming seas.

“I hope (the negotiators) will not only consider data and percentages, but they will consider our lives,” she told journalists. – Thomson Reuters Foundation

CEOs in Davos say they can't save the planet on their own



INTERNATIONAL – As the financial industry comes under pressure to avoid funding dirty energy, the heads of Citigroup Inc. and Zurich Insurance Group AG said they need their clients to do more work too.

“I say to our clients, ‘I don’t want to be the sharp end of the spear,’” enforcing industry standards, Michael Corbat, chief executive officer of the New York-based bank, said Tuesday in a panel discussion at the World Economic Forum in Davos, Switzerland. “You should set those, you get proper buy-in and we will be here to support you.”

Mario Greco, the CEO of Zurich Insurance, agreed with Corbat that carbon was mispriced, and said insurance firms are having a tough time deciding what to underwrite as a result.

Insurers are underwriting “based on ethical standards,” and “compliance with the Paris agreement, but it’s not fast enough and it’s a tough job,” Greco said. “We don’t know exactly” how an industry should restructure itself, “and we are not supposed to do that, so the only thing we can do is stop funding. Stopping funding is a brutal reaction to market displacement.”

This year's meeting of the global business elite in Davos has focused on sustainability, with teenage activist Greta Thunberg criticizing a lack of action on climate during her appearance.

Financial companies are under pressure to retreat from funding industries including coal-fired power, and the European Union is working on a so-called taxonomy governing sustainable investments. Lawrence Fink, who runs BlackRock Inc., last week pledged to incorporate environmental concerns into the asset manager's investment process for both active and passive products.

"We are very much aligned" with Fink, Corbat said in Davos on Tuesday. "Where we don't want to find ourselves is being the person that starts to dictate winners and losers."

Corbat created the new role of chief sustainability officer at his bank in September. He said then that governments should create incentives for companies to adopt sustainable practices, rather than relying on punishments like carbon tariffs.

Greco was pessimistic that there will be more effective global agreements on matters like carbon pricing, calling the prospect "almost unthinkable."

Global companies "will go wherever there is the best financial opportunity short-term for them, and they will follow what prices tell them to do. This is what makes me scared, or pessimistic, that we will achieve the right speed."

You've done nothing on climate change: Thunberg tells Davos



Greta Thunberg brought a stark message to the business elite gathering in Davos: Everybody is talking about climate change, but nobody is doing anything.

Her appearance at the opening of the World Economic Forum was a striking sign that the debate about how to stop the Earth warming has become mainstream in business circles. Yet only a handful of executives from the oil, gas and coal industries that are chiefly responsible for warming the planet were seen attending the panel at which Thunberg spoke on Tuesday.

Meanwhile, U.S. President Donald Trump used his speech at the event to tout the benefits of soaring American oil and gas production and make a thinly veiled attack on those who warn about looming environmental catastrophe.

"The climate and environment is a hot topic right now, thanks to young people pushing," 17-year-old Thunberg said at the Swiss ski resort, where about 3,000 business and political leaders gather each year. "Pretty much nothing has been done, since the global emissions of CO₂ have not reduced."

The Swedish activist's words came as the World Economic Forum sounds alarm bells on climate change. This year and for the

first time on record, environmental risks occupy the group's top five long-term concerns, while corporate executives say they're increasingly concerned about environmental issues. But young activists at Davos said none of this is enough.

Thunberg is giving relevance to the Davos gathering, which for years has suffered from criticism that it was largely a billionaires' playground where the rich debated among themselves without hearing outside voices. On Tuesday, there was a full room at this first 8:30 a.m. panel featuring young activists – something relatively unusual for a climate change event at Davos.

The debate on climate change is forcing businesses to respond to demands to stop carbon dioxide and other greenhouse gas emissions. While some have been slow in embracing the fight, executives at Davos highlighted that the overall views from within the business community have dramatically changed over the last decade or so, moving from denial and questioning science into complete acceptance.

"I have come to Davos for well over a decade and I see behind the scenes, among top executives, a huge change in perception of the risk of climate change," said Marco Dunand, the head of Mercuria Energy Trading SA, one of the worlds' largest oil traders. "It's not just talk: it's translating into billions of dollars in investments in the energy transition."

Activists' language has made its way to boardrooms across the world too. At another morning panel at Davos, Iberdrola SA Chief Executive Officer Ignacio Galan called on companies to close coal-powered plants in order to curb emissions.

"We are in a hurry, we have to move fast," he said. "There is already money available, cheap money, cheap technology, competitive technology and political decision in many countries to do so. Let's not continue delaying and

postponing"

Trump Encounter

Trump landed at Davos on Tuesday morning and was welcomed by the words "Act on climate," carved into the snow on a hill near the helicopter landing zone. He didn't mention the topic in his speech at the forum later in the day, focusing instead on America's growing economy and record oil and gas production.

"This is not a time for pessimism, this is a time for optimism," Trump said as Thunberg watched from the audience. "We must reject the perennial prophets of doom and their predictions of the apocalypse. They are the heirs of yesterday's foolish fortune tellers."

The President and the activist's first and only meeting last year became instantly viral as Thunberg was filmed furiously staring at Trump. While they've never spoken face to face, they both seem to follow each other closely on Twitter.

"Greta must work on her anger management problem, then go to a good old fashioned movie with a friend! Chill Greta, Chill!", Trump tweeted in December shortly after the activist was named person of the year by Time magazine. Thunberg didn't directly answer, but changed her Twitter biography to "A teenager working on her anger management problem."

Three-day March

Hundreds of climate activists are due to arrive at Davos on foot on Tuesday following a three-day march across the Swiss Alps. Protesters will gather at the ski resort and stage a demonstration calling for the end of the World Economic Forum. Companies attending Davos for the past five decades bear a great responsibility for today's climate crisis, activists say.

"We are tired of empty promises. But we have hopes," said Puerto Rican activist Salvador Gomez-Colon. "We're not waiting years to see the change that we want to see."

Thunberg urged businesses, governments and the media to listen to scientists. She cited research by the Intergovernmental Panel on Climate Change from 2018 that concluded that the carbon budget— the amount that can be released while still keeping global warming limited to a specific level – stands at 340 gigatons of carbon dioxide and that, at current emission levels it will be gone in less than eight years.

"Since last summer I have been repeating these numbers over and over again in every speech," she said. "I know you don't want to talk about this. I assure you I will continue to repeat these numbers until you do."

– With assistance by Jeremy Hodges

Climate change and gender top aid agencies' 2020 to-do list



We asked 10 organisations which two key issues they would focus on in the coming year

By Emma Batha

LONDON, Dec 30 (Thomson Reuters Foundation) – Tackling climate change and addressing violence against women and girls will be among aid agencies' top priorities for 2020, they told the Thomson Reuters Foundation.

We asked 10 organisations which two key issues they would focus on in the coming year.

CARE INTERNATIONAL – Natasha Lewis, senior advocacy & policy advisor

- We'll work with communities to address the climate crisis, as it's the biggest challenge facing us today. We'll focus on supporting women in particular, as they're often responsible for farming their fields, collecting water and feeding families – meaning they're increasingly affected by more extreme droughts or floods.
- We'll champion the crucial role women play as first responders in humanitarian emergencies. We'll advocate

alongside local women's rights organisations, so they are heard by decision-makers at a global level.

U.N. WORLD FOOD PROGRAMME – Corinne Woods, director of communications

- Work with our partners to help those caught up in conflict and struggling on the frontlines of the climate crisis – war and climate shocks now account for the world's eight worst food crises.
- Build a global coalition promoting initiatives such as school feeding so as to unleash the full potential of 73 million vulnerable children in 60 countries by 2030. It's estimated every dollar invested in school feeding brings a \$3-10 return from improved health and education among schoolchildren and increased productivity when they become adults.

INTERNATIONAL RESCUE COMMITTEE – Laura Kyrke-Smith, IRC UK executive director

- Women and girls are often left behind in the context of crises. In 2020, the international community must redouble its efforts to prevent and respond to violence against women and girls.
- Resolving the conflict in Yemen has never been more urgent. At the current rate of decline, it will take 20 years to return Yemen to pre-crisis levels of child hunger. Now is the time to seize this opportunity for peace.

CHRISTIAN AID – Patrick Watt, director of policy

- Our key focus will be on climate justice because it's those people living in poverty who are on the frontline of the climate crisis. We want to raise our voices to create lasting change for those who need it most.
- We'll also be working on economic justice because our current economic system is broken. This is driving

inequality, poverty and climate breakdown at a time when progress is slipping towards the 2030 goal of ending extreme poverty.

INTERNATIONAL FEDERATION OF RED CROSS AND RED CRESCENT SOCIETIES – Elhadj As Sy, IFRC secretary general

- Millions of people around the world are already suffering the humanitarian consequences of climate change. Our priority will be helping communities find innovative, low-cost, and sustainable adaptation and risk reduction measures to the impacts of climate change.
- We will also scale up and ensure early mental health and psychosocial support in humanitarian crises. Mental health and psychosocial support during humanitarian crises can make the difference between life and death.

U.N. FOOD AND AGRICULTURE ORGANIZATION – Dominique Burgeon, director of emergencies

- Scale up our efforts to engage with agriculture-reliant communities and boost their resilience before shocks like droughts or floods hit, via our “Early Warning for Early Action” initiative. This can prevent a shock from becoming a crisis and is far more cost-efficient than post disaster relief.
- Respond rapidly in emergency situations from the earliest days of a disaster or crisis to help impacted rural farming families stay or get back on their feet and producing food, straight away. Even in crises contexts, it’s possible to do this, and doing so makes a real difference.

ACTIONAID UK – Girish Menon, chief executive

- All too often, there’s no justice for women and girls affected by violence so we’ll campaign to fix broken justice systems that protect abusers and punish women.

As we continue to see rollbacks in women's rights, we will keep calling out gender inequality and violence.

- We'll work harder to promote women's leadership in communities facing humanitarian crisis. Experience shows us that their influence leads both to better immediate responses and to longer term impact.

OXFAM GB – Danny Sriskandarajah, chief executive

- The climate emergency is pushing millions of people deeper into hunger and poverty, with more than 52 million across 18 African countries facing hunger due to extreme weather. 2020 will be a pivotal year for countries to agree carbon emissions reductions and secure funding to help poorer nations cope.
- Next year marks five years since the escalation in the Yemen conflict. We'll continue to provide assistance to millions without food, clean water and health care, as well as challenging international arms sales to members of the Saudi-led coalition.

PLAN INTERNATIONAL – Sean Maguire, executive director of influencing

- A key focus in 2020 is supporting global grassroots youth activism for gender equality through Girls Get Equal. Through this campaign, we aim to continue helping young people smash the stereotypes that hold girls back.
- Our other key focus is on tackling the unique needs of girls in crisis situations, whether this is the safety and educational needs of girls in refugee camps, as part of displaced groups or due to drought, for example in Eastern Africa.

CATHOLIC RELIEF SERVICES – Sean Callahan, president and CEO

- Climate change is causing land degradation and flooding. We are working on land restoration, which can help mitigate climate change impacts for farmers and coastal

communities, but it needs to be done quickly and at scale.

- Another priority is responding to the crisis in Central America where people have become increasingly vulnerable and unable to feed their families. We foresee drought conditions, in addition to tremendous violence, continuing to force many to make the dangerous trip northward.

World on course to burn more coal, threatening climate goals



Coal consumption is set to rise in the coming years as growing demand for electricity in developing countries outpaces a shift to cleaner sources of electricity in industrialised nations. While use of the most polluting fossil fuel had a

historic dip in 2019, the International Energy Agency anticipates steady increases in the next five years. That means the world will face a significant challenge in meeting pledges to reduce greenhouse gas emissions that cause global warming. "There are few signs of change," the agency wrote in its annual coal report released in Paris yesterday. "Despite all the policy changes and announcements, our forecast is very similar to those we have made over the past few years." While this year is on track for biggest decline ever for coal power, that's mostly due to high growth in hydroelectricity and relatively low electricity demand in India and China, said Carlos Fernandez Alvarez, senior energy analyst at the Paris-based IEA. Despite the drop, global coal consumption is likely to rise over the coming years, driven by demand in India, China and Southeast Asia. Power generation from coal rose almost 2% in 2018 to reach an all-time high, remaining the world's largest source of electricity. The steady outlook for coal comes in spite of waning demand in industrialised nations. Europe has set a goal of zeroing out carbon pollution by the middle of the century, which would mean drastic reductions for coal. In the US, competition from natural gas has cut into demand for coal, despite President Donald Trump's vows to revive the industry. The story is different in Asia, which will more than make up for reductions elsewhere. India, with a population of more than 1.3bn, will see coal generation increase by 4.6% a year through 2024 to help power its growing economy. In Southeast Asia, coal demand will grow more than 5% annually. China, which accounts for almost half the world's consumption, will also have modest growth with usage peaking in 2022. "How we address this issue in Asia is critical for the long-term success of any global efforts to reduce emissions," Fatih Birol, the IEA's executive director, wrote in a foreword to the report. Any new coal plants added to meet the growing power demand in these countries will likely be in use for decades. Even as China's coal consumption slows and then declines after 2022, emissions from the fuel would need to rapidly decline in order to meet climate targets. Under

current policies, the world is set to warm almost 3 degrees Celsius (5.4 degrees Fahrenheit) by the end of the century. That's double the rate scientists say is needed to constrain the worst impacts of climate change. To prevent those increases, it would be necessary to use technology that captures and stores carbon as it's emitted from power plants, the IEA said. While the technology is expensive and untested at scale. But with coal here to stay, it may be the only option to reduce emissions.