

IEA sees calm global oil market in 2020 as new supplies soar



Bloomberg/ London

Global oil markets are likely to remain “calm” next year as soaring production outside Opec and high inventories keep consumers comfortably supplied, the International Energy Agency said.

Supplies outside Opec – driven by the US, Brazil, Norway and Guyana – will increase by 2.3mn barrels a day in 2020, almost twice the expansion in world oil demand, the agency said in its monthly report. The growth estimate is about 100,000 barrels a day higher than last month.

Oil prices have remained steady near \$60 a barrel in London for several months. US sanctions on Iran’s exports and political unrest in Venezuela and Iraq have also had limited impact.

“The calmness is supported by a well-supplied market and high inventories,” said the Paris-based agency, which advises most

major economies on energy policy. "This may continue into 2020 because non-Opec countries will grow their production" significantly.

As a result, the Organization of Petroleum Exporting Countries – which has cut production this year to prevent a surplus – is currently pumping about 1.7mn barrels a day more than will be needed in the first half of next year, the report showed.

Opec and its partners will meet on December 5 to 6 to consider next year's output levels, though they've so far indicated little desire to make the deeper cuts that would be needed to avert a new oversupply. The outlook for global economic growth remains precarious, pressured by the ongoing trade dispute between the US and China.

"The hefty supply cushion that is likely to build up during the first half of next year will offer cold comfort to Opec+ ministers gathering in Vienna at the start of next month," the IEA said. "However, a continuously well-supplied market will lend support to a fragile global economy."

Oil inventories in developed nations accumulated by about 9mn barrels during the third quarter, even as Opec deliberately restrained output.

Another reason for the market's torpor has been "sluggish" processing of crude oil by refiners, whose intake will drop this year for the first time since the financial crisis of 2009, according to the report. However, the decline is a very modest 90,000 barrels a day.

In the short term, the market ought to pick up as global oil demand growth accelerates. Low oil prices and robust US demand for petrochemicals will spur worldwide consumption to expand by 1.9mn barrels a day year-on-year in the fourth quarter, more than four times the rate observed in the second, the agency said.

The calmness the IEA sees resuming next year fits with its expectations for the long term, outlined in its annual World Energy Outlook earlier this week. That report anticipates that increasingly efficient car engines and the adoption of electric vehicles will cause world oil demand to plateau

around 2030.

Essar Steel case: SC clears way for ArcelorMittal to complete \$5.8 bn deal



ArcelorMittal won approval from India's top court to complete its \$5.8 billion purchase of a bankrupt steel mill, clearing the way for tycoon Lakshmi Mittal to enter the world's second-biggest market.

The Supreme Court allowed Arcelor to make the payment for Essar Steel India Ltd. and set aside a bankruptcy appellate tribunal's order that had given secured and unsecured creditors equal right over the sale proceeds. The lenders'

panel of a bankrupt company has discretion in the distribution of funds in insolvencies, a three-judge bench headed by Justice Rohinton F Nariman said Friday.

The acquisition of Essar Steel India Ltd will make Arcelor the fourth-biggest producer in a nation where the government is investing trillions of rupees in infrastructure. The verdict is likely to be the final approval in a more than yearlong battle by Arcelor to take over Essar. While companies can seek a review of decision by the same bench of judges, the success of review petitions is rare.

The world's largest steelmaker, ArcelorMittal and its partner Nippon Steel Corp had offered to pay Rs 420 billion (\$5.8 billion) in cash to creditors and pump another Rs 80 billion in the mill last year. While that offer was approved by a bankruptcy tribunal in March under the insolvency process, the payment was kept on hold by the Supreme Court after a dispute arose between lenders on the distribution of funds.

The ruling will set a precedent for other insolvencies that are awaiting resolution over the distribution of funds between different class of creditors.

India's rupee, and creditors to Essar extended gains after the ruling. The rupee rose 0.3% at 11:06 am, while State Bank of India added 4.2% and Canara Bank surged as much as 7%.

The Supreme Court on Friday also said the timeline for insolvencies can be extended in exceptional cases.

World's only \$100bn utility owes its rise to wind power



Two decades ago, when coal ruled U.S. power generation, a Florida utility plowed some of its extra cash into a wind farm atop a desolate Oregon plateau.

It was the start of an unimaginably successful bet.

This year, that company – now named NextEra Energy Inc. – became the world's first utility with a market capitalization of more than \$100 billion, thanks largely to its clean-power business. It's almost twice as valuable as the oil major ConocoPhillips and has developed enough wind and solar farms across the U.S. and Canada to power the entire nation of Greece. Shares have doubled in four years, outperforming virtually every other stock in the industry.

"They made a bunch of strategic moves early and aggressively that have paid off very well for them," said Andrew Weisel, an analyst at Scotia Howard Weil.

Not that NextEra started down the clean-energy road with a master plan. The move into renewables happened pretty much by accident after the company began lending money to wind-farm

developers. Some of them ran into financial troubles. NextEra forgave debts in exchange for majority stakes in the farms.

As it would turn out, the wind farms weren't duds.

"Lo and behold, we did some projects that were quite profitable," said Lewis Hay III, the company's chief executive officer from 2001 to 2012.

So Hay pulled together a renewable energy team of his own. One of his early moves was to recruit two of his former co-workers from a consulting firm: One was Moray Dewhurst, who eventually served as NextEra's chief financial officer. The other was Jim Robo, who at the time was an executive for General Electric Co.

Robo, a Harvard MBA, became NextEra's CEO in 2012. He rarely grants media interviews and declined to comment for this story.

"Things really took off when Lew, Moray and Jim got together," Barclays Plc analyst Eric Beaumont said.

When Robo came on board in 2002, wind power was a tiny slice of the U.S. power mix. But in another stroke of luck, Congress had just extended a tax credit that would prove to be the key to a wind generation boom across America that's still going.

It helped turn what was a once-sleepy utility – established in 1925 as Florida Power & Light – into a global powerhouse.

NextEra, which changed its name in 2009 to reflect its growing focus on alternative energy, now has wind and solar farms in about two dozen U.S. states and four Canadian provinces. They total roughly 18 gigawatts, enough to power almost 13 million homes. Last year, its clean power business – in addition to some natural gas and nuclear plants – raked in \$4.7 billion in profit, 70% of its net income.

And the company isn't done growing. It already has contracts

to add another 12 gigawatts of renewables.

Challenges remain. The federal tax credit for wind farms is set to start phasing out soon. And in Florida, a campaign is under way to pass a constitutional amendment that would break up monopolies held by NextEra's utilities, Florida Power & Light Co. and Gulf Power. On an adjusted basis, the company's utility business still made up the bulk of its earnings last year.

Not all of NextEra's bets have panned out. Its \$18 billion attempt to buy Oncor Electric Delivery Co. in Texas crashed and burned. And its \$2.6 billion attempt to buy Hawaiian Electric Industries Inc. fell apart, too.

And for all the company's clean energy, NextEra unsuccessfully fought in support of a 2016 measure in its home state of Florida that critics said would have limited rooftop solar growth and, hence, protected utility revenue. The company has a plan to install 30 million solar panels in Florida by 2030 and use batteries to replace fossil-fuel plants in its fleet.

Long-Term Contracts

NextEra's strategy has hinged on building projects in states with deregulated power markets that required utilities to buy a certain amount of electricity from wind or solar farms, including Texas and California. It enables NextEra to line up long-term contracts, ensuring revenue for a decade or more.

Early on, Robo negotiated a deal with his old company: GE. NextEra had a contract to buy natural gas turbines from the conglomerate. But the market for gas plants was in decline. So the utility convinced GE to rejigger the deal and allow it to buy wind turbines instead.

"That's a cause that led us to scale up our business much faster than maybe otherwise we would have done," Hay said. The scale soon gave the company an advantage that made it hard for

others to catch up.

One of Robo's adages is wind and solar are essentially big data operations. An early sign was in 2006, when NextEra bought WindLogics Inc., a high-tech forecaster. At the time, wind developers relied on WindLogics's computer modeling techniques to predict wind patterns and pinpoint exactly where to site turbines. By acquiring the company, NextEra locked up that edge for itself.

"That became a very powerful advantage," Stephen Byrd, an equity analyst at Morgan Stanley, said in an interview.

The company has said it will do just fine even after the federal tax credit for wind farm expires. The company's size makes it well positioned to benefit from U.S.'s ongoing shift away from fossil fuels, said Timothy Winter, a portfolio manager at Gabelli Funds LLC.

"They're still in the very early innings of the ball game," Winter said.

Germany faces power shortages if onshore wind grows too slow



Germany's onshore wind crisis, which is already cutting into company profits and costing jobs, may also begin to weaken defenses against blackouts.

That's the conclusion of analysts who see electricity risks mounting in Europe's biggest economy, where construction of new onshore wind parks has dropped to a standstill because of a flood of environmental complaints. German industry will need new power sources in coming years to ensure security of supply as coal and nuclear stations are decommissioned.

Chancellor Angela Merkel's government is trying to coordinate the shutdown of thermal plants with a build-up of clean power to avoid potential supply shortages, said McKinsey & Co. Senior Partner Thomas Vahlenkamp. But that "entails pushing ahead with reaching clean energy targets – especially turning around stalled onshore wind," he said.

Coal power will start to come offline next year and Germany foresees completing its full exit from nuclear energy by the end of 2022. Those two sources of energy comprise about 43% of German power currently available around-the-clock that will disappear by 2030, according to Vahlenkamp.

Merkel's coalition government has set an ambitious green power growth target. It wants to generate almost two-thirds of its electricity with renewables over the next decade from about two-fifths today. Reaching that goal implies onshore wind adding about 4.6 gigawatts of fresh power annually.

The pace of net new onshore installations dropped to 0.3 gigawatts in January to June, down from 5.3 gigawatts in 2017 and 2.4 gigawatts last year. The drop in construction is already hurting turbine maker Enercon GmbH, which has a strong focus on the German wind market.

Until now, Germans have enjoyed one of the most resilient power grids in Europe. Consumers experienced just 12 minutes of power outages last year, according to the latest report of the Council of European Energy Regulators. That compares with some 6 hours of outages in Romania, the worst-performing country.

Merkel's coalition is counting on restoring wind power's trajectory by cutting through red tape that's holding up projects. Moves to extend the national grid to accommodate more clean power and expanding storage won't be ready until the middle of next decade.

Germany is counting on its status as a net exporter of power to help it brace it for potential shortfalls as nuclear and coal power wind down in stages. It transmitted about 53 terawatt-hours of power to its European partners in the nine months through September, compared with 31 terawatt-hours of imports, monitoring group AG Energiebilanzen reported Monday.

Yet with manufacturing and construction responsible for

producing a quarter of all German goods and services, the country can't afford to bump into security of supply issues, according to the country's Mechanical Engineering Industry Association VDMA, which wants the government to be more assertive in warding off potential blackouts.

Heading off blackouts and securing electricity "hangs on just how much power is available and when," VDMA spokeswoman Beatrix Fontius wrote.

"Renewable power will in the near future shoulder the job of supplying power – for that reason it's hard to understand why the government is dragging its feet," she said.

Natural gas plants set for revival in Germany as carbon costs soar



Uniper SE is preparing to switch on more natural-gas plants as higher costs for carbon allowances shifted the economics of the power generation business away from coal.

Gas plants also are benefiting both from a slump in the price of the fuel. Uniper, one of Europe's largest utilities, will bring back on line as much as 3.5 gigawatts of gas plants that were mothballed when market conditions were less favourable.

That's almost a third of its gas-plant capacity.

"Carbon markets have shown they work," chief executive officer Andreas Schierenbeck said in an interview in Bloomberg's office in Frankfurt. "This summer, carbon prices were very high and gas is very cheap, very competitive. The logic is clear: you need as much a double carbon certificates for coal than for gas."

The remarks illustrate the latest shift in the ever-changing economics of generating electricity. While Chancellor Angela Merkel is moving to phase out the most polluting fossil fuels, emissions in Germany have actually risen in recent years as the government took nuclear plants off the grid, boosting the need for coal.

Now the government is seeking to remove both nuclear and coal plants from the nation's power supply, eliminating about half of Germany's power generation capacity. The rise in carbon costs has helped encourage that shift by making it profitable for utilities to switch on gas plants instead of coal.

The move will help Germany reduce pollution. Natural gas emits as much as 55% less carbon dioxide than coal. While the government is seeking to spur renewables to meet its climate commitments, industry executives, energy forecasters and investors say that more gas will be needed for the time being. Gas plants can help balance the grid until there's enough wind, solar and battery capacity to ensure supply day and night and on breeze-free days.

"With the nuclear and coal exit, our gas plants will have to produce more," said Schierenbeck. "We need more gas for power generation as a big part of our power plants is on the reserve, and we will probably take them out."

Carbon permits under the European Union's emissions-trading system, the world's biggest cap-and-trade programme, were at €23.70 a tonne (\$26.14) on Friday, 20% higher than a year ago. Analysts and traders expect that annual demand will outweigh supply at least until the mid-2020s.

German gas prices are 40% lower than a year ago. Weighing on prices are abundant supplies arriving both by pipeline and in

LNG tankers. That has pushed storage levels to near capacity and well above the average for the past five years.

Uniper has the capacity to generate 10 gigawatts of power from natural gas in Germany. It will be one of the companies hit quickly by legislation to phase out coal in Germany. Some versions of the draft bill suggest the country will shut down 5 gigawatts of hard coal capacity by 2022.

Uniper owns more than 3 gigawatts of power plants that burn hard coal and is building another 1 gigawatt-plant in western Germany. It expects to get approval from the government to start operating that facility, named Datteln-4.

The new power unit has not entered service yet due to ongoing structural problems with its boiler. Uniper now expects to start it in the middle of next year. The company has argued that the plant should open despite Germany's plan to exit coal.

"Datteln 4 will probably be the last new coal power plant we will see in Germany," said Schierenbeck. "I would guess it would be also true for Europe. I have the feeling there's understanding from the government that it makes sense to keep the newer and most efficient instead of the older and less environment friendly."

Uniper is Europe's fifth largest greenhouse gas emissions polluter in the power sector based on 2017 data, according to Sandbag, a climate change think tank in London.

EU bank takes 'quantum leap' to end fossil-fuel financing



By Ewa Krukowska, Bloomberg

The European Investment Bank adopted an unprecedented strategy to end funding for fossil fuel energy projects, in a move expected to support Europe's plans to become the first climate-neutral continent.

The board of the Luxembourg-based lending arm of the European Union decided at a meeting on Thursday to approve a new energy policy that includes increased support for clean-energy projects. The bank will not consider new financing of unabated fossil fuels, including natural gas, from the end of 2021.

With more than half a trillion dollars in outstanding loans, the EIB is the biggest multilateral financial institution in the world. Given the EIB's market impact and influence over the lending strategies of investors, its decision could end up

depriving polluting projects from other sources of financing as well.

The lender's move to prioritize energy efficiency and renewable-energy projects will reinforce the Green Deal being pushed by Ursula von der Leyen, the incoming president of the European Commission. She wants the institution to become a climate bank and help unlock 1 trillion euros (\$1.1 trillion) to shift the economy toward cleaner forms of energy.

"Climate is the top issue on the political agenda of our time," EIB President Werner Hoyer said in a statement, calling the decision to transition away from financing fossil fuels a "quantum leap in its ambition."

The EIB decision is part of a broader push across the EU's most powerful institutions that's catapulted the bloc to the forefront of global efforts to fight climate change. New European Central Bank President Christine Lagarde has pledged to make climate change more of a focus for the institution, which is considering adding climate-related risks to its stress-test scenarios, in what could potentially make exposure to high-carbon footprint projects a liability for the balance sheets of financial firms in the continent.

The 28-nation EU wants to step up its climate ambition in sync with the landmark 2015 Paris agreement to fight global warming, after the U.S. turned its back on the accord. With EU leaders considering committing to climate neutrality by 2050, Europe is a step ahead of other major emitters, including China, India and Japan, which haven't so far translated their voluntary Paris pledges into equally ambitious binding national measures.

"For the EIB to stop funding fossil fuel projects is a game-changer that begins to deliver the EU's vision for climate leadership as laid out in the Green Deal," said Eliot Whittington, director of the European Corporate Leaders Group.

“We need this to act as an unequivocal signal into the financial system to encourage other multilateral lenders to follow suit.”

Von der Leyen, who is due to assume her new job as head of the EU’s executive arm in the coming weeks, also wants the bloc to raise its current target of cutting emissions by at least 40 percent by 2030 from 1990 levels. That may involve a reduction in pollution in the order of 50% or even 55% to counter the more frequent heat waves, storms and floods tied to global warming. Fossil fuels such as coal, oil and natural gas are leading contributors to climate change.

The EIB deal resolved a two-month deadlock where Germany and some central European nations sought to soften the proposed rules and make certain natural-gas projects eligible for financing. The strategy adopted on Thursday allows for continued support for projects already in the works that are vital for Europe’s energy security as long as they are appraised and approved by the end of 2021.

“Hats off to the European Investment Bank and those countries who fought hard to help it set a global benchmark today,” said Sebastien Godinot, economist at the environmental lobby WWF Europe. “All public and private banks must now follow suit and end funding of coal, oil and gas to safeguard investments and tackle the climate crisis.”

New Standards

The EIB new policy includes a new Emissions Performance Standard of 250 grams of carbon dioxide per kilowatt-hour, replacing the current 550 grams standard. That means that in order to qualify for financing, new power-generation projects have to be mitigated by various technologies that significantly improve their emissions performance, EIB Vice President Andrew McDowell said in a conference call.

The EIB, which last year invested more than 16 billion euros in climate-action projects, is preparing to play a larger role in spurring low-carbon technologies.

“This is not a last step, there are many more steps to come,” McDowell said. “But this is probably one of the most difficult parts of this journey that we’re having to take.”

Algeria's Sonatrach renews gas export deal with France's Engie



ALGIERS, Nov 19 (Reuters) – Algerian state energy firm Sonatrach has renewed a gas export contract with France's Engie, it said on Tuesday, a few days after Kamel Eddine Chikhi was appointed as its new chief executive.

Energy sales represent a crucial source of foreign currency

for Algeria, but have been declining since oil prices dropped in 2014.

Rising domestic demand and stagnant output have also made it hard for Sonatrach to maintain Algerian export levels. That had raised some doubts over whether the Engie deal would be renewed, an industry source in Algeria said.

sonatrach said the contract covers the medium and long term, but did not specify how much gas it will deliver to Engie.

The state energy firm has already renewed gas export contracts this year with Enel, Galp Energia, Eni, Botas, Naturgy, and Edison. Its total gas exports in 2018 were 51.4 billion cubic metres, with Italy and Spain accounting for two-thirds of the volume.

“We will work to renew our oil and gas reserves that have been declining in the past decade,” Kamel Eddine was quoted as saying on Sunday after his appointment.

Algeria’s lower house of parliament has passed a new energy law to boost the country’s attractiveness to international oil companies investing in the sector, but has kept a rule preventing majority foreign ownership of hydrocarbons projects. (Reporting By Lamine Chikhi; Editing by Angus McDowall and Jan Harvey)

Europe needs robust China strategy



By Ana Palacio/ Madrid

Two months ago, in his address to the United Nations General Assembly, UN Secretary-General António Guterres expressed his fear that a “Great Fracture” could split the international order into two “separate and competing worlds,” one dominated by the United States and the other by China. His fear is not only justified; the fissure he dreads has already formed, and it is getting wider.

After Deng Xiaoping launched his “reform and opening up” policy in 1978, the conventional wisdom in the West was that China’s integration into the global economy would naturally bring about domestic social and political change. The end of the Cold War – an apparent victory for the US-led liberal international order – reinforced this belief, and the West largely pursued a policy of engagement with China. After China became a member of the World Trade Organisation in 2001, this process accelerated, with Western companies and investment pouring into the country, and cheap manufactured products flowing out of it.

As China’s role in global value chains grew, its problematic trade practices – from dumping excessively low-cost goods in Western markets to failing to protect intellectual-property

rights – were increasingly distortionary. Yet few so much as batted an eye. No one, it seemed, wanted to jeopardise the profits brought by cheap Chinese manufacturing, or the promise of access to the massive Chinese market. In any case, the thinking went, the problems would resolve themselves, because economic engagement and growth would soon produce a flourishing Chinese middle class that would propel domestic liberalisation.

This was, it is now clear, magical thinking. In fact, China has changed the international system much more than the system has changed China.

Today, the Communist Party of China is more powerful than ever, bolstered by a far-reaching artificial intelligence-driven surveillance apparatus and the enduring dominance of state-owned enterprises. President Xi Jinping is set for a protracted – even lifelong – tenure. And, as US President Donald Trump has learned during his ill-fated trade war, wringing concessions out of China is more difficult than ever. Meanwhile, the rules-based international order limps along, without vitality or purpose. Emerging and developing economies are frustrated by the lack of effort to bring institutional arrangements in line with new economic realities. The advanced economies, for their part, are grappling with a backlash against globalisation that has not only weakened their support for trade liberalisation and international cooperation, but also shaken their democracies. The US has gradually withdrawn from global leadership.

As a result, international relations have become largely transactional, with ad hoc deals replacing holistic co-operative solutions. Institutions and agreements are becoming shallower and more informal. Values, rules, and norms are increasingly regarded as quaint and impractical.

This has produced a golden opportunity for China to begin constructing a parallel system, centred on itself. To that end, it has created institutions like the Asian Infrastructure Investment Bank and the New Development Bank, both of which mimic existing international structures. And it has pursued

the sprawling Belt and Road Initiative – an obvious attempt to position itself as a new Middle Kingdom.

Yet many, including in Europe, are not particularly concerned about the emergence of this parallel system. So long as it brings ready access to project finance, it's fine with them. As Europe becomes increasingly alienated from the US, many Europeans also believe that they can improve their strategic position by situating themselves on the frontier between the two emerging worlds.

That strategy may offer some advantages, including opportunities for arbitrage. But as anyone who lives on a fault line knows, there are also formidable risks: friction between the two sides is bound to shake the foundations of whatever is positioned atop the boundary.

This is especially true for the European Union, which is built on a commitment to co-operation, shared values, and the rule of law. If the EU aids in building a parallel structure that contradicts its core values, particularly the centrality of individual rights, it risks severing its meta-political moorings – the beliefs to which its worldview is tethered. A Europe adrift will eventually sink.

The solution is not for Europe simply to take America's "side," and turn its back on China. (That, too, would run counter to European values.) Rather, the EU must heed Guterres's call to "do everything possible to maintain a universal system" in which all actors, including China and the US, follow the same rules.

In this sense, the recent joint statement by Xi and French President Emmanuel Macron reaffirming their strong support for the Paris climate agreement is promising, as is Europe's growing recognition that China is not only a partner or economic competitor, but also a "systemic rival." But this is only a start. Europe needs a robust China strategy that recognises the profound, often subtle challenges that the country's rise poses, mitigates the associated risks, and seizes relevant opportunities.

Achieving this will require perspective and discipline,

neither of which comes naturally to the EU. But there is no other choice. As soon as Europe stops defending the rule of law and democratic values, its identity – and its future – will begin to crumble. – Project Syndicate

* Ana Palacio is former Minister of Foreign Affairs of Spain and former Senior Vice-President and General Counsel of the World Bank Group. She is a visiting lecturer at Georgetown University.

Opec's flaring crises add new risk for oil supply



Bloomberg/London

Opec may have no appetite to cut oil production deeper when it meets next month, but flaring political crises across the group are once again threatening supply.

Unrest erupted in Iraq and Iran this month – two of the Middle

East's biggest producers – as people took to the streets protesting financial hardship and bad governance. That's adding to the range of supply threats already afflicting the Organization of Petroleum Exporting Countries, from economic collapse in Venezuela to simmering discontent in Algeria.

"We kind of had a second Arab Spring, but it's been under the radar," said Helima Croft, chief commodities strategist at RBC Capital Markets. "The real question is what is going to happen in Iraq."

Iraq, Opec's second-biggest producer, has cracked down on demonstrations against corruption in recent weeks that have spread to the southern oil hub of Basra. Iran has seen its oil exports slashed by US sanctions and is suppressing protests spurred by the resulting economic stagnation.

Opec and its allies – who together pump about half the world's oil – will meet in Vienna in early December to consider production levels for 2020, having cut output this year to prevent a global surplus. Despite signs that fragile demand and surging US shale supply will unleash a new glut, they've signalled no desire to reduce output further.

They may not have a choice.

In recent years, unplanned supply disruptions within Opec nations have done as much to keep markets balanced as the group's deliberate cutbacks. Iran and Venezuela have lost a combined 1.7mn barrels a day since last October, more than all 24 nations in the Opec+ coalition agreed to cut this year.

As turmoil intensifies across the group, next year could see more accidental losses: oil prices of about \$60 a barrel are already below levels most Opec nations need to cover government spending, and a further slump would only deepen the strain.

"There is no better way to put it: the geopolitical risk is rising in the Middle East again," said Tamas Varga, an analyst at PVM Oil Associates Ltd in London.

Algeria is struggling to placate a mass youth-led movement seeking change after ousting long-term President Abdelaziz Bouteflika earlier this year, and Libya remains split by armed

factions. Ecuador, which will leave Opec in January, suffered a 20% slump in oil production last month amid riots and looting.

In Iran protests were triggered by an increase in gasoline prices.

The biggest risk is posed by Iraq, according to RBC's Croft. While the country's oil sector has proven robust during recent turbulence, even boosting output when Islamic State militants captured swathes of territory five years ago, the latest demonstrations reflect a new level of popular discontent.

"If you had attacks on infrastructure, oil workers going on strike – Iraq is the place that could surprise the market," she said.



By Laurie Goering/London

Population growth and climate change are putting increasingly intense pressure on the planet's limited water supplies, with worsening shortages emerging from the Middle East to Asia and

Latin America, researchers and bankers said on Monday.

"All the local crises around the world are building up to a global crisis," Torigny Holmgren, executive director of the Stockholm International Water Institute, told a conference on the issue at London-based think-tank Chatham House.

But easing the threat and ensuring more people have access to a stable, safe water supply will be hugely challenging because water access and distribution are tied up in politics, cultural views and entrenched systems, conference speakers said.

In Jordan, the third most water-scarce country, raising water prices to reflect the shortage would make economic sense – but not when nearly 1.5mn Syrian refugees, on top of 9mn citizens, depend on it, said Craig Davies of the European Bank for Reconstruction and Development (EBRD).

"It's potentially a powder keg," said Davies, who heads climate resilience investments for the bank. "From a political point of view, it's imperative to keep water tariffs very low."

Uzbekistan, meanwhile, has built its economy on exports of thirsty cotton, something that might not make sense as water becomes more scarce.

But "you can't adjust that very easily" without upsetting farmers and the economy, Davies added.

In North Africa, newly available solar-powered water pumps are giving drought-hit farmers crucial access to irrigation – but also removing incentives to use water sparingly as farmers no longer have to buy fuel for diesel-powered irrigation pumps.

"There is literally no control," said Annabelle Houdret, a senior researcher at the German Development Institute who works in the region.

Aquifers there could be depleted, she warned.

In many Islamic countries, water is seen as a human right and a gift from God, so asking governments to charge people for better water services can be complicated, Davies said.

In most places the EBRD works, the price users pay for water is far below the actual cost of bringing it to them, he said,

meaning there is often too little money to invest in treating and delivering water, and maintaining and expanding networks. "If you're not paying a rational price for the water, the incentive is to use the water irrationally," he added.

Getting water use right in an increasingly parched world is crucial, said Olcay Unver, vice-chair of UN-Water, a co-ordinating agency on water issues for the United Nations. Three out of every four jobs globally depend on water in some way, including small-scale farmers who produce 80% of the world's food, said Unver, who is also a water advisor for the United Nations Food and Agriculture Organisation (FAO).

By 2050, FAO estimates food demand globally will rise by 50% but "we don't have 50% more water to allocate to agriculture", he noted, adding it is already the dominant water user. Demand for water is also surging in fast-growing cities, where more than half of people live now and over two-thirds are expected to live by 2050, Unver said.

Getting enough water to everyone is particularly difficult as climate change brings more erratic rainfall, with many places hit by floods and droughts in turn, conference speakers said. But some countries are coming up with innovative ways to protect or expand supplies.

In India's Gujarat state, for instance, much of the year's rain comes in monsoon season – and then rapidly evaporates, said Gareth Price, a Chatham House senior research fellow who works on South Asia.

But some farmers have begun gathering leftover straw after harvest and piling it in low-lying spots in their fields to absorb and hold excess rain, allowing it to slowly filter into the groundwater, he said.

The innovation – which also helps cut down on burning of field stubble, a major source of air pollution in the region – has won World Bank funding for its expansion, he said.

In Brazil, meanwhile, farmers and ranchers who preserve and plant more forests along rivers to protect water supplies are paid by downstream users under a "water producers" programme, said Paulo Salles, director of a Brazilian water regulatory

agency.

Daanish Mustafa, a geography professor at King's College London, said growing water scarcity would unlikely drive a surge in wars, but instead lead to more "unjust co-operation" – cross-border sharing pacts where the stronger party gets the better deal.

Water access is already hugely unequal, speakers said, with US residents using 700-900 litres a day, Europeans about 200 litres and many of the world's poorest just 10-15 litres.

Reliable access to water is crucial to achieving many of the global sustainable development goals (SDGs) – from ending poverty and hunger, to reducing inequality – they added.

Yet climate change threatens to put secure water access ever further out of reach.

"With the SDGs, we can see the light at the end of the tunnel – but the problem is it's almost certainly a climate change train coming," said Christopher Hurst, director general of projects for the European Investment Bank. – Thomson Reuters Foundation