Warning to polluters: 3.6bn people are now climate vulnerable

While the world population reached 8bn on November 15, 2022 according to the United Nations, nearly 3.6bn people are now climate vulnerable. It is in this context that one should analyse the news that the Intergovernmental Panel on Climate Change (IPCC) Synthesis Report under the Sixth Assessment Cycle will be released on March 20 following negotiations this week by governments on the 'Summary for Policymakers'.

The report will gather and distil scientific evidence from the IPCC working group reports and special reports published between 2018 and 2022. It will be the last such report from the IPCC in this cycle until further reports are published under the next assessment cycle, which could be only in 2027 or 2028.

Culminating with this Synthesis Report, the science from the

IPCC is crucial evidence to governments for this decade on the current state of the climate crisis. It must serve as a warning to polluters that their time is up. The window of time to keep global temperatures below 1.5ºC is fast closing in. Current climate targets put the world on a 2.8ºC pathway by 2100. A rapid equitable fossil fuel phase out must be top priority for all governments while scaling up investments in renewables and energy efficiency measures. Wealthy nations must substantially increase their international climate finance based on their fair share, the Climate Action Network (CAN) has urged in a statement last Friday.

Past reports under this assessment cycle have underlined the dire situation and stated unequivocally that greenhouse gases – from the reliance on fossil fuels, industrialisation and land-use – is driving up emissions and causing unprecedented levels of global heating. Human actions have caused the last decade to be the warmest decade in the last 125,000 years. Sharpening inequities show that the richest 10% of households contribute about 36%-45% of global greenhouse gas emissions. Communities in many vulnerable regions will experience the limits of adaptation even before 1.5ºC warming and sea-level rise poses an existential threat to some small islands and low-lying coastal areas.

“The forthcoming IPCC report should mobilise governments to envision and act towards transitioning into a fully renewable-energy powered society supported by strong energy efficiency measures, based on principles of justice and the protection of human rights,” stated Stephan Singer, senior global specialist on climate science and energy, CAN International, and head of delegation for CAN at IPCC. Investing in renewables means rapidly divesting from fossil fuels and nuclear energies and phasing them out by mid-century to ensure the least damaging pathway towards climate stability. The IPCC Synthesis Report must reiterate its recent findings that renewable energy, particularly solar and wind, are technologically, financially and economically the key means to fight climate change, he said.

Dr Stephen Cornelius, Global Deputy Lead for Climate and Energy, World Wide Fund for Nature, stated that leaders must heed the science and act immediately with the pace and scale necessary to decarbonise the economies in time. An accelerated phase-out of fossil fuels is needed to limit global warming to below 1.5ºC and avoid the worst climate change risks. As he explained, nature is our secret ally in the fight against climate change. Natural systems have absorbed 54% of human-related carbon dioxide emissions over the past decade and have slowed global warming and helped protect humanity from much more severe climate change risks. We can’t hope to limit warming to 1.5°C, adapt to climate change and save lives and livelihoods, unless we also act urgently to safeguard and restore nature, a non-negotiable part of the solution to the climate crisis, as Dr Cornelius said.

Climate, ice sheets and sea level: The news is not good

PARIS – Parts of earth's ice sheets that could lift global oceans by metres will likely crumble with another 0.5 deg C of warming, and are fragile in ways not previously understood, according to new research.

The risk, which will play out over centuries, may also be greater than expected for a significant portion of the world's population in coastal regions.

New research suggests that the number of people threatened by sea-level rise has been underestimated by tens of millions because of poorly interpreted satellite data and a lack of scientific resources in developing countries.

Ice sheets in Greenland and Antarctica have shed more than half a trillion tonnes annually since 2000 – six icy Olympic pools every second.

These kilometres-thick ice cubes have replaced glacier melt as the single biggest source of sea-level rise, which has accelerated three-fold over the last decades compared with most of the 20th century.

A 20cm increase since 1900 has boosted the destructive wallop of ocean storms made more powerful and wide-ranging by global warming, and is driving salt water into populous, low-lying agricultural deltas across Asia and Africa.

Up to now, climate models have underestimated how much ice sheets will add to future sea-level rise because they mostly looked at the one-way impact of rising air temperatures on the ice, and not the complicated interaction between atmosphere, oceans, ice sheet and ice shelves.

Using so-called active ice sheet models, scientists from South Korea and the United States projected how much ice sheets would raise global oceans by 2150 under three emissions scenarios: swift and deep cuts as called for by the United Nation's Intergovernmental Panel on Climate Change, current climate policies, and a steep increase in carbon pollution.

Looking only at a 2100 horizon is misleading, because oceans will continue to rise for hundreds of years no matter how quickly humanity draws down emissions.

If rising temperatures – up 1.2 deg C above pre-industrial levels so far – can be capped at 1.5 deg C, the additional impact of ice sheets will remain very small, they found.

Doomsday glacier

But under current policies, including national carbon-cutting pledges under the 2015 Paris Agreement, Greenland and Antarctica would add about half a metre to the global watermark.

And if emissions increase – from human or natural sources – under a "worst-case" scenario, enough ice would melt to lift oceans 1.4m.

Perhaps the most striking finding from the study, published this week in Nature Communications, was a red line for runaway

ice sheet disintegration.

“Our model has a threshold between 1.5 deg C and 2 deg C of warming – with 1.8 deg C as a best estimate – for acceleration of ice loss and sea-level increase,” co-author Fabian Schloesser from the University of Hawaii told Agence France-Presse.

Scientists have long known that the West Antarctic and Greenland ice sheets – which together could lift oceans 13m – have “tipping points” beyond which complete disintegration is inevitable, whether in centuries or millennia. But pinpointing these temperature trip wires has remained elusive.

A pair of studies this week in Nature, meanwhile, showed that Antarctica’s Thwaites “doomsday glacier” – a slab the size of Britain sliding towards the sea – is fracturing in unsuspected ways.

Thwaites is one of the fastest moving glaciers on the continent, and has retreated 14km since the 1990s. Much of it is below sea level and susceptible to irreversible ice loss.

But exactly what is driving the march to the sea has been unclear for lack of data.

Misinterpreted data

An international expedition of British and US scientists drilled a hole the depth of two Eiffel towers (600m) through the thick tongue of ice Thwaites has pushed out over the Southern Ocean’s Amundsen Sea.

Using sensors and an underwater robot, called Icefin, threaded through the hole, they examined the ice shelf’s hidden underbelly.

There was less melting than expected in some places, but far more in others.

The stunned scientists discovered up-side-down staircase formations – like an underwater Escher drawing – with accelerated erosion, along with long fissures being forced open by sea water.

“Warm water is getting into the cracks, helping wear down the glacier at its weakest point,” said Dr Britney Schmidt, lead author of one of the studies and an associate professor at Cornell University in New York.

A fourth study, published last week in the American Geophysical Union journal Earth’s Future, found that rising oceans will destroy farmland, ruin water supplies and uproot millions of people sooner than thought.

“The time available to prepare for increased exposure to flooding may be considerably less than assumed to date,” Dutch researchers Ronald Vernimmen and Aljosja Hooijer concluded.

The new analysis shows that a given amount of sea-level rise – whether 30cm or 300cm – will devastate twice the area projected in most models to date.

Remarkably, a misinterpretation of data is mostly to blame: Radar measurements of coastal elevations used until recently, it turned out, often mistook tree canopy and rooftops for ground level, adding metres of elevation that were not in fact there.

Most vulnerable will be tens of millions of people in the coastal areas of Bangladesh, Pakistan, Egypt, Thailand, Nigeria and Vietnam.

Earlier research taking into account more accurate elevation readings found that areas currently home to 300 million people will be vulnerable by mid-century to flooding made worse by climate change, no matter how aggressively emissions are reduced. AFP

Development banks must embrace nuclear energy

Multilateral development banks (MDBs) have historically been reluctant to invest in nuclear energy, and the World Bank has not financed a nuclear power plant since 1959. In the absence of MDB funds, the majority of international financing for such projects has come from state banks in Russia and China, establishing Russian and Chinese companies as the primary suppliers of nuclear technology to low- and middle-income countries.

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establishing Russian and Chinese companies as the primary suppliers of nuclear technology to low- and middle-income countries.

While this approach has allowed MDBs to avoid controversy, they must acknowledge that the world has changed. The urgent need to curb greenhouse-gas emissions, together with Russia's war in Ukraine and subsequent surge in oil and gas prices, has increased global demand for nuclear power. With the 2011 Fukushima disaster fading in the rearview mirror, even Japan is planning to restart its reactors. France, The Netherlands, and the United Kingdom have all announced plans to build new nuclear power plants, Sweden is considering it, and the European Union now allows nuclear energy to be labelled as a green investment. In the United States, the federal government is expected to pump about $40bn into the sector over the coming decade, and private investment in nuclear energy is surging.

This change in sentiment coincides with rapid technological advances. The development of smaller and safer reactors has made nuclear power cheaper, faster to deploy, and easier to maintain. Whereas the construction of traditional nuclear power plants has historically been a major national undertaking, with costs frequently running into the dozens of billions of dollars, so-called small modular reactors allow for a more tailored approach and more manageable financing packages.

This is particularly important for developing countries, which must figure out how to expand their power supply while curtailing greenhouse-gas emissions as they become increasingly industrialised and urbanised. The International Energy Agency estimates that demand for energy in Africa will jump by one-third by the end of the decade, owing to population and income growth, as well as improved access.

While increased MDB support for renewable energy has helped put developing economies on the path toward carbon neutrality, most countries still rely on coal-fired power plants and natural gas for baseload electricity production. To complete

the shift away from fossil fuels, governments must complement wind and solar energy with low-carbon sources that are not dependent on weather conditions.

But without nuclear power (or hydroelectricity, but not all countries have that option), governments will find it difficult to replace their fossil-fuel baseload. While it may be possible to achieve this by combining renewable energy with utility-scale battery storage, the costs are prohibitive, and modern batteries come with their own sustainability issues. Geothermal energy could also play this role, but currently it is limited to areas where geothermal heat is available close to the Earth's surface. New technologies could expand access to geothermal power, but they are costly.

By abandoning their reticence about nuclear power, MDBs could help scale up low-carbon energy supply while enhancing global security. Western countries' withdrawal from nuclear energy over the past few decades has enabled Russia to establish itself as the leading international provider of reactors, services, and financing for nuclear-power projects. At a time of heightened geopolitical tensions, it is in the interest of MDBs' democratic shareholding governments to establish an alternative for emerging countries interested in nuclear power but hesitant to make their energy security dependent on Russia. Simultaneously, MDBs would promote better safety and sustainability standards.

Given that international development agencies tend to follow MDBs' lead, and that private financing of energy infrastructure projects in developing countries often depends on multilateral lenders' risk-mitigation policies, MDBs should reverse their position on nuclear power. Otherwise, Russia and China will remain the world's primary suppliers of such projects.

To be sure, MDBs must carefully assess proposed nuclear energy projects to ensure that they meet appropriate technological and sustainability standards. While some under-resourced countries with weak institutions might not be ready to pursue

nuclear power, MDBs are uniquely positioned to support emerging economies seeking alternatives to Russian and Chinese technologies and financing.

The climate crisis, too, has created unprecedented momentum for reform. The US, Germany, a G20 expert panel, and Barbadian Prime Minister Mia Mottley have all called for strengthening MDBs' capacity to support developing countries in mitigating and adapting to climate change and in mobilising private financing for this purpose. Meanwhile, the World Bank recently published an "evolution roadmap" that aims to increase its capacity to respond to climate change.

Reforming MDBs' financing structures and energy policies is crucial to supporting developing countries in mitigating the worst effects of climate change. Moreover, Russia's war against Ukraine has revealed the critical role of the multilateral financial system as a bulwark against tyranny. Since the start of the war, the World Bank has disbursed $16bn in financial support to Ukraine, with other multilateral finance institutions providing comparable amounts. By explicitly permitting MDBs to finance nuclear power, their shareholding governments could weaken Russia's still-considerable influence in emerging countries.

The momentum generated by nuclear energy's renaissance, the geostrategic imperative to reduce Russia's role as the dominant international provider of nuclear energy infrastructure, and the looming climate crisis, has presented MDBs with a unique opportunity to update their nuclear energy policy. To fight climate change and achieve a safer, more sustainable future, they must seize it. – Project Syndicate

(Disclaimer: The opinions and arguments expressed here are those of the authors and do not necessarily reflect the official views of the OECD or its member countries.)

* Håvard Halland, Senior Economist at the OECD Development Centre, is a former senior economist at the World Bank and a former visiting scholar at Stanford University.

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Qatar is among ‘Top 10 LNG exporters’ in January; global LNG exports hit 35.5mn tonnes: GECF

Qatar is among the list of ‘Top 10 LNG exporters’ in January, data provided by the Gas Exporting Countries Forum (GECF) show. The other LNG exporting countries in the list are US, Australia, Russia, Malaysia, Indonesia, Algeria, Oman, Nigeria and Trinidad and Tobago.

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The other LNG exporting countries in the list are US, Australia, Russia, Malaysia, Indonesia, Algeria, Oman, Nigeria and

Trinidad and Tobago.

In its inaugural edition of the Monthly Gas Market Report (MGMR) GECF said that in January, global LNG exports grew by 2.8% (0.98mn tonnes) y-o-y to 35.56mn tonnes.

The higher LNG exports were driven mainly by non-GECF countries and to a lesser extent from GECF member countries and LNG reloads.

However, GECF member countries were the largest LNG exporter globally with a share of 49.7%, down from 50.9% during the same period a year earlier.

Similarly, the share of LNG reloads in global LNG exports decreased from 1.5% to 1.2% during the same period.

In contrast, the share of non-GECF countries LNG exports globally increased from 47.9% to 48.8%.

GECF cited Rystad Energy’s preliminary forecast and said global natural gas production was estimated to have decreased by 0.4% to 4,032 bcm in 2022 due to the decline in production in the CIS and Africa regions.

Several factors, including a decrease in gas demand due to high prices and geopolitical tensions, exerted downward pressure on gas production.

Conversely, natural gas output of North America, the Middle East, Europe, and Latin America increased by 64 bcm, 19 bcm, 7 bcm, and 3bcm, respectively.

The 2022 figures have been slightly revised upward from the previous month’s estimates due to upward revisions in natural gas output in Asia Pacific, the Middle East, and North America. Non-GECF natural gas output is estimated to increase by 3.8% to reach 2,388 bcm in 2022, mainly due to a production increase of 47bcm in the US.

In 2023, the forecasts reveal a growth in global gas

production, driven by growth in North America, the Middle East, Africa, Latin America, and Asia Pacific.

GECF said it is pleased to unveil the inaugural edition of the Monthly Gas Market Report (MGMR). This new publication offers a comprehensive analysis of the global gas market on a monthly basis.

The report provides essential insights for industry players, policymakers, and stakeholders, including a detailed analysis of gas demand and supply, international trade flows, gas storage trends, pricing trends, and the impact of the global economy on the gas market.

“The GECF is committed to delivering high-quality information and analysis, and is confident that the Monthly Gas Market Report will be a valuable resource for all those interested in the gas industry,” said Mohamed Hamel, secretary-general, GECF.

GECF member countries’ petrochemical expansion set to boost exports

The export value of selected petrochemicals such as methanol, ammonia, ethylene, propylene, polyethylene, and polypropylene from GECF member countries was estimated at $28.8bn in 2021, Doha-headquartered Gas Exporting Countries Forum said in an expert commentary.

Polyethylene exports from GECF member countries accounted for the bulk of the petrochemical export value with a share of 44%, followed by methanol (21%), ammonia (19%), polypropylene (13%), ethylene (2%), and propylene (1%).

“Given the petrochemical sector expansion plans in the GECF member countries and their competitive advantages, petrochemicals exports value may increase in coming years,” GECF’s Gas Market Analysis Department noted in the commentary.

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Moreover, a significant portion of petrochemicals and fertilisers are consumed domestically in GECF member countries. Some endogenous factors are critical for determining whether to export or domestically consume petrochemical products. For example, geographic location, access to the export infrastructure such as seaports, economy’s structure, climate, and agriculture sector’s potential impact decision-making on whether to consume petrochemical products domestically or export them.

Global natural gas consumption continues to be dominated by the power generation, industrial and residential sectors, where it is used as an energy fuel source. In the meantime, non-energy use of natural gas, mainly in the petrochemical industry, represents only 6% of global natural gas consumption – around 230bn cubic meters (bcm) per year.

In this context, there is plenty of room for further penetration of natural gas in the petrochemical sector, with

natural gas used as a feedstock to make higher value-added products.

GECF member countries, endowed with the world’s largest proven natural gas reserves, have a prominent potential to monetise their natural gas resources through developing higher value-added petrochemical products.

For many countries, the establishment of a petrochemical value chain can secure a number of potential benefits for their economies and societies.

These include diversification of the national economy away from one major source of export revenues; growth of the national economy, mainly through the addition of value to raw materials; sustainable export revenues amidst the volatility of oil and gas prices; potential socio-economic benefits on the state level (job creation, higher wages) and potential environmental advantages of developing the petrochemical industry.

The petrochemical industry has shown significant growth in recent years, and GECF member countries continued to be the leaders in the global petrochemical industry. While each GECF member country has its own specific strengths, they have some common advantages.

Firstly, the major advantage of GECF member countries is the availability of natural gas resources which is one of the key feedstock in the industry, with more than 70% of global proven natural gas reserves concentrated there.

Secondly, petrochemical producers in GECF member countries are likely to enjoy low-cost feedstock, and in this context they have a competitive advantage compared to other producers, particularly in Europe and Asia, when gas prices are relatively lower than oil and coal prices.

Thirdly, GECF member countries also have the relevant infrastructure and integrated supply networks. In addition, they have the well-established expertise in the managerial and technical aspects of the industry. Moreover, the Forum presents GECF member countries with a unique opportunity to collaborate and share knowledge and best practices.

The GECF analysis shows that there is a great potential for its member countries to monetise their natural gas through the petrochemical industry. This is supported by their leading role as a reliable supplier of petrochemicals globally, abundance of untapped natural gas reserves and a bright outlook for demand for petrochemicals.

Column: Europe faces more high gas prices next winter

LONDON, Jan 20 (Reuters) – Europe is on course to end the winter of 2022/23 with a record amount of gas in storage, putting downward pressure on futures prices for deliveries this spring and summer.

But even with a record inventory carry over, the region will likely experience higher prices and renewed pressure to conserve gas in the winter of 2023/24.

Europe's storage is designed to smooth out seasonal variations in consumption not to provide a strategic stockpile to protect against an embargo disrupting supplies.

Combined gas consumption in the European Union and United Kingdom was around 5,203 terawatt-hours (TWh) in 2019, the last full year before the pandemic, according to Eurostat.

They have enough capacity to store 1,129 TWh, equivalent to about 21% of annual consumption, according to Gas Infrastructure Europe.

In practice, storage depletion supplies a much smaller share of actual consumption each year, typically around 10%.

SEASONAL STORAGE

Seasonal storage is designed to absorb excess production during summer, discharging during winter to meet peaking consumption.

Using inventories to shift supply from summer to winter in this way is more cost-effective than maintaining lots of extra production capacity that would only be used a few months each year.

Inventories are large enough to cope with the unpredictability of winter heating demand and ensure supply does not run out in the event winter is much colder than average.

But given the relatively small volume of gas that can be stored, the inventory system cannot provide both seasonal and strategic storage at the same time.

STOCK CLEARANCE

Storage follows a two-season cycle of summer (with inventories accumulating from roughly April to September) and winter (inventories depleting from roughly October to March).

Deviations from this are usually reversed within the subsequent season via large changes in prices forcing inventories back to the long-term average within 6-12 months.

If inventories end the summer unusually high, prices fall to boost consumption, ensure inventories deplete faster and end

winter close to average.

Conversely, if inventories end winter low, prices rise to curb consumption, accelerate inventory accumulation and end summer close to normal.

Price changes ensure that inventories normalise within a single storage year rather than over multiple storage years.

RECORD CARRYOVER

Gas conservation policies, high prices and an extended period of unusually warm temperatures between mid-December and mid-January have combined to avert possible gas shortages this winter.

EU and UK storage is on course to end the winter of 2022/23 more than 54% full, well above the average of 35% over the previous 12 years ("Aggregated gas storage inventory", GIE, January 20).

But that means there will be much less unused space to absorb over-production during the summer season of 2023.

Lack of storage will ensure prices fall to stimulate consumption and discourage production to limit inventory accumulation.

But the futures market is forward-looking; traders are already anticipating, accelerating and amplifying the price decline.

Prices have tumbled to limit excess inventories and create more space for gas to be put into storage during summer 2023.

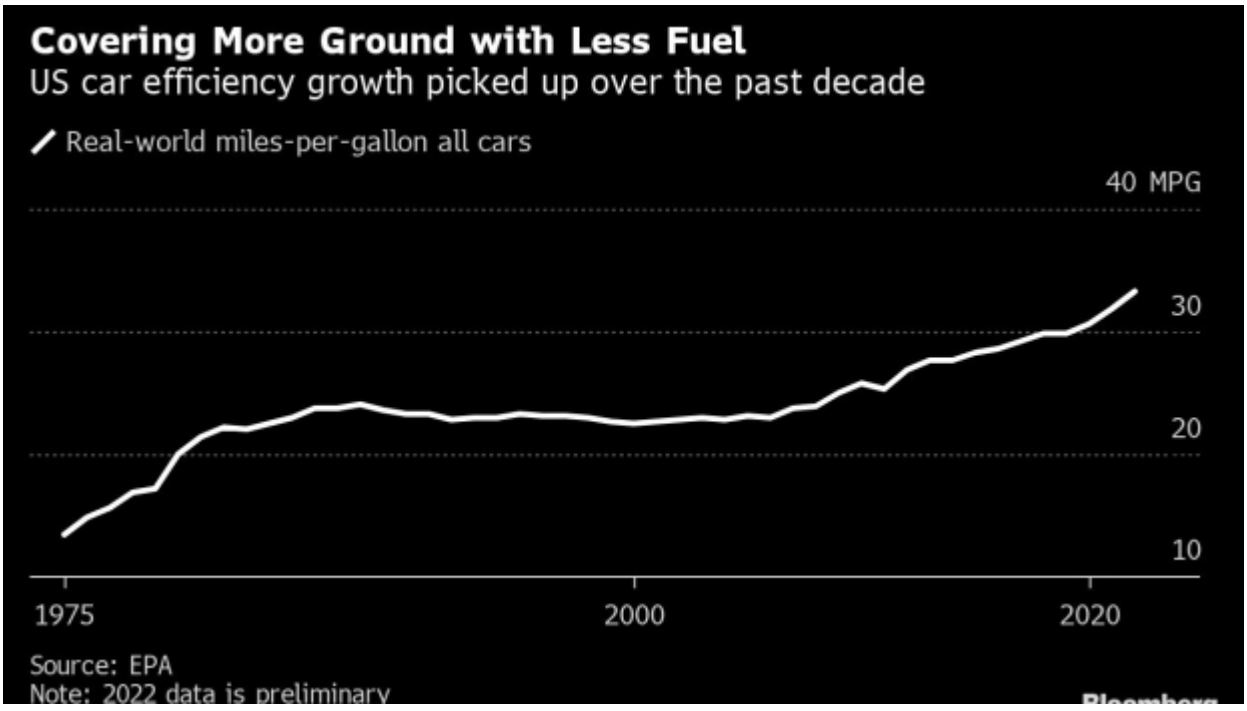
Futures prices for gas delivered in March 2023 have fallen to less than €65 per megawatt-hour from €177 at the start of October and a peak of €338 in August.

Pressure on storage space is likely to keep prices low this summer even if they then rise again next winter.

Given the limitations of the storage system, a record carryover from winter 2022/23 will lessen but cannot eliminate the need for high prices and conservation in winter 2023/24.

Higher inventories provide more energy security than lower ones, but policymakers should avoid implying inventories alone are enough to prevent shortages or price spikes next winter.

Gasoline's Slow Fade Heralds US Supply Pain Now, Gain Later for Climate



(Bloomberg) — Gasoline demand in the US has peaked, with a surprise slowdown last year signaling that consumption is unlikely to ever again return to pre-Covid levels.

This long-awaited milestone shows that climate-friendly initiatives put into place more than a decade ago are finally

taking the US across the threshold. American drivers are traveling more miles on less fuel than ever thanks to a generation of cars with more efficient engines as well as new electric vehicles. The government forecasts further declines for gasoline demand this year and next.

What comes next is a two-track future: short-term pain, followed by decades of economic and environmental benefits.

In the next several years, the fuel industry is poised to cut supply faster than the drop in demand, with more plants due to shut or convert to smaller biofuels facilities. The result could be production crunches for gasoline, price spikes or even limited outages because of the mismatch. Paradoxically for drivers, it's gasoline's slow death that will make it painful.

In the longer term, falling gasoline demand will eventually mean tamer prices and lower emissions, which is obviously good news for the environment since transportation is the biggest contributor to greenhouse gas emissions in the US.

Peak gasoline will "have significant implications for consumers, inflation, politics," said Mark Finley, an energy fellow at Rice University's Baker Institute for Public Policy. "All in all, a big deal — over time."

One of the strange things about being at peak gasoline is that there's still quite a lot of demand. Consumption started plateauing in the years before the pandemic. Even as it drops now, it's not falling off a cliff and is still at what historically would be considered high levels.

At the same time, oil refiners, who turn crude into useable fuels, are already cutting back to stay profitable. The supply losses were exacerbated because of pandemic-induced shutdowns. Since gasoline plants are destined to become uneconomical stranded assets as demand fades, there's little incentive to increase output from them now.

In simple terms, the refining industry risks moving on from gasoline more quickly than consumers.

It’s the latest example of the global energy transition’s bumpy path. While most prices have calmed in the past few months, the jolts in natural gas, electricity and fuel markets are likely to be with us for the next several years as investments flow out of fossil fuels and into technologies for clean power. And it also underscores why energy-driven inflation has become harder to control — even periods of relative stability will likely be punctuated with volatile price jumps that will make the Federal Reserve’s job that much more difficult.

What’s Happening With Supply?

Oil refiners have already reduced their production capacity by more than 1 million barrels a day, equal to about 5% of the US total.

That squeeze helped to send retail gasoline prices to all-time highs in 2022 and left drivers in parts of the country facing lines to fuel up during the worst crunches of 2021. The disruptions are set to continue because of just how long the lingering dependency on gasoline will last.

“It will take decades for gas-powered vehicles to drive off into the sunset,” said Rob Jackson, a professor of Earth system science at Stanford University.

Supply concerns in recent days helped to send the the gasoline crack spread — a measure of profitability of turning crude oil into the fuel — in New York up to levels not seen since last summer.

How Much Will US Demand Fall?

The Energy Information Administration sees a modest decrease for 2023, predicting a drop of less than 1% to 8.74 million

barrels a day.

Matthew Parry, head of long-term forecasting at consultancy Energy Aspects, says the declines will become more pronounced over time. He predicts consumption will slump by about 15% between 2022 and 2027, for a total decline of around 1.4 million barrels a day over the period.

“It’s the ongoing replacement of old cars with more fuel efficient ones that contributes to the steady erosion in the amount of gasoline used per mile,” said Linda Giesecke, an analyst at consultancy ESAI.

US fuel economy in 2021 reached a record 25.42 miles per gallon, and preliminary data for 2022 shows an even greater jump to 26.36, according to the Environmental Protection Agency. These are the results of tough fuel mileage standards Barack Obama called a “harbinger for change” back in 2009. President Joe Biden has put forward even more aggressive goals, and his administration’s Inflation Reduction Act dedicates $374 billion to climate-related spending, including for EVs.

How Long Will the Bumps Last?

It’s hard to predict exactly when the supply and demand sides will even out, partly because that will depend on how quickly consumers buy new fuel-efficient cars and EVs.

In 2022, vehicles that run on full or partial electricity were poised to account for more than 17% of US auto sales, up from 3.3% six years ago, according to researcher LMC Automotive. But so far, EVs account for less than 1% of all vehicles on the road.

Cutting fuel demand is a long game. To put in perspective how much time it takes for the fleet to turn over: Even if all cars sold in the US today are EVs, it will take an estimated nine years for EVs to replace just half the cars on US roads,

according to John Eichberger, executive director of the Fuels Institute.

What Does This Mean for Inflation?

Gasoline accounts for about 4% of the consumer price index. But fuel costs loom much larger in the minds of consumers, many of whom have to fill up their tanks weekly. To understand the outsized role gasoline plays in the economy, just consider the extraordinary steps that the Biden administration took in the last few years to keep prices under control: The president ordered a huge release of reserves from the strategic oil stockpiles and was imploring American oil drillers to increase output, even though the move stood in contrast to his climate-focused agenda.

Short-term price spikes in the next few years will continue to be a headache for policymakers. But zooming out a bit more, the long-term decrease in fuel demand will eventually help to keep costs in check.

“The politics of gasoline will also change,” said Rice University’s Finley.

بعد البحر… نفطٌ في البرّ؟

كتب نادر حجاز في موقع mtv:

أعاد الأمين العام لحزب الله السيد حسن نصرالله الى الواجهة الحديث عن استخراج النفط في البرّ بعد اكتشافه في البحر، جازماً أن لبنان يملك ثروة نفطية في اليابسة وأن السياسة عطّلت استخراجها طوال السنوات السابقة.

تصريح نصرالله يذكّر بدراسات عدة أشارت الى هذا الأمر، بدءا من العالم غسان قانصوه وصولاً الى المسوحات التي سبق وأجريت في مهل

زمنية مختلفة ومتباعدة. فهل لبنان يملك فعلاً ثورة نفطية في البرّ؟ وما الطريق الذي يجب أن تسلكه الدولة لاستخراجه؟ والسؤال الأهم هو أي فائدة لهذا الاستخراج وهل العالم لا زال في عصر النفط؟
الخبيرة في شؤون النفط والغاز لوري هايتيان ذكّرت بالمحطات التاريخية التي برز فيها الحديث عن النفط في البر، بدءا من الفترة الممتدة بين 1947 و1967، حيث حصلت محاولات للبحث عن النفط في اليابسة في 7 مناطق لبنانية، وخلصت الى أنه يوجد نفط في لبنان لكن الاستخراج مكلف جداً. وأُقفل الملف حتى العام 1993 حين حصلت محاولة في البحر في شمال لبنان، ليعاد ويُطوى الملف وصولاً الى مرحلة ما بعد العام 2000 حتى اليوم، مشيرة الى مسوحات أجريت من قبل الدولة اللبنانية في هذه الفترة ولكن لم يُعلَن عن نتائجها، وبالتالي لا يمكن الحديث بعد عن كميات كبيرة نملكها.

وأشارت هايتيان في حديث لموقع mtv الى وجوب القيام بالدراسات اللازمة ولاحقاً بدء الحفر للتأكد من وجود النفط في البرّ من عدمه، موضحة أنه "لا يوجد اليوم أية خطة لاستخراج النفط في البرّ وكل ما نملكه هو مسوحات موقعية حصلت أخيراً، وكان هناك قانون للتنقيب عن النفط في البرّ قيد الدرس في البرلمان لكنه لم يُقرّ".
واعتبرت هايتيان أنه "بناء على هذه المعطيات لا يمكن الجزم بوجود نفط في البرّ، وما يمكننا القيام به هو التخطيط واتخاذ القرار بالبحث حول كيفية استخراج النفط والغاز إذا وُجد".

وتعليقاً على طرح نصرالله، قالت هايتيان: "نصرالله يتحدث عن زمن ولّى، فالاعتماد على النفط والغاز والسعي للتحوّل الى دولة نفطية أصبح "دقّة قديمة" في الاقتصاد، ونمط اقتصادي قديم لا يصلح ولا يتماشى مع التطور العالمي في زمن البحث عن الطاقات المتجددة. وإذا كانوا يعتبرون أن هذا النهج سينقذ لبنان، فلن يكون له مكان في العالم".

وفيما وصفت هذا التفكير بالبالي والقديم الذي لا مكان له في العالم، شددت هايتيان على أنه "يجب التطلّع الى الأمام وكيفية الاتجاه نحو الطاقة المتجددة"، مقترحة أن تقوم وزارة الصناعة بمسح حول ما يملكه لبنان من معادن يمكن استخراجها واستثمارها في صناعة الطاقة المتجددة"، مضيفة "إذا كنا نريد فعلاً أن يكون لنا دور في الاقتصاد العالمي فالأجدى التفكير بهذا الاتجاه وهذا ما يمكن أن يساهم في تطوير المجتمع وحجز مكان للبنان في الاقتصاد العالمي".

النفط ليس الحل السحري للبنان… جملة قالها بيار دوكان في السابق،

فعودة النهوض الاقتصادي يحتاج الى نمو والى استعادة الدورة الاقتصادية لحيويتها ودعم القطاعات المنتجة. وكل هذا لن ينفع إذا لم يقم لبنان بالاصلاحات وتحصين مؤسساته في وجه الفساد، وإلا لن تحمل الأيام المقبلة ما هو أفضل من واقع حالنا حتى ولو كانت نفطية.

Prospects for the Cyprus EEZ in 2023

With no end in sight for the Russia-Ukraine war, global energy markets will continue to be unstable, making 2023 another difficult year for global energy.

On top of this, with uncertainties in global energy policy continuing, as Europe and the US pursue a faster energy transition, and elections in Cyprus, Greece and Turkey, oil

companies operating in the Cyprus EEZ are unlikely to announce any major new initiatives in 2023.

Chevron's appraisal drilling at Aphrodite is expected later in the year, but it may produce more questions than answers. The reservoir is compartmentalized, and the well will be drilled in the middle and largest section.

Even though the Minister of Energy makes frequent references to gas exports from Aphrodite starting in 2027, there are no clear plans by Chevron and its partners to support this. For such a date to be feasible, gas sales contracts should have already been signed with prospective buyers in Egypt. But 11 years after the discovery of Aphrodite, the Minister is still talking about the development plan being "in the final stages and we expect to have news soon," an often-repeated statement without any indication by when.

The announcement of 2-3 trillion cubic feet (tcf) gas discovery at Zeus-1 in block 6 by Eni/TotalEnergies in December, is good news. Small, but it adds to the two other small discoveries in the same block, Cronos-1 with 2,5tcf and Calypso likely with 1-2tcf. It strengthens the case for the potential linking of these gas fields to the subsea production facilities at Eni's Zohr gas field in Egypt, to be transported to the Damietta LNG plant for liquefaction and export.

Earlier in the week, the Minister of Energy suggested that the Eni-TotalEnergies consortium wishes to implement faster steps in the exploitation of block 6. But this was not borne out at the meeting of the two companies with the President on 10 January. Apart from generalities, and reconfirming commitment to Cyprus' EEZ, there was no mention of any such plans at this stage. Instead, TotalEnergies expressed interest to participate in future in solar energy projects, but there was no indication of when, where or generation capacity.

Evidently, the companies operating in Cyprus' EEZ are not

rushing with any new commitments or investments at this stage. This was confirmed by the Minister. Asked if there will be any activity in Cyprus' EEZ this year, she said "These are certainly issues that we discuss within the development plan of each block…we do not have anything concrete to announce, but there will definitely be some activity in the coming year."

The prospects for the development of the discovered gas fields in Cyprus EEZ in 2023 are low.

Apart from the need for oil company commitment, this requires a change of policy by the EU regarding the future use of natural gas in Europe. Even though it is looking for new supplies in the short-term to 2030 to replace Russian gas, the longer-term future remains uncertain.

EU's position, embodied in its REPowerEU strategy, is to reduce gas consumption in Europe by 30 per cent by 2030, and carry on reducing this further on the way to achieving net-zero emissions by 2050. It has already achieved a 20 per cent reduction in gas consumption year-on-year. This discourages European utilities from entering into long-term gas purchase contracts, which are needed to encourage the development of new gas fields that require 20+ years of exports.

I believe that challenges to the reliability and performance of renewables due to the effects of climatic change on wind speeds and rainfall will eventually force the EU to change its gas policies later in the decade. Already EU countries are calling for changes to the Green Deal that recognize the need for gas longer-term.

This will open up opportunities for the development of East Med gas for export to Europe.

But Cyprus must also prepare the ground to make this possible. An obstacle to developing Cyprus gas fields is the geopolitical risk associated with the unresolved Cyprus

problem and Turkey’s continuous threats. With elections in Cyprus, Greece, and Turkey ushering in new governments by the summer of 2023, the second half of 2023 will be the right time to redouble efforts to overcome these obstacles.

Turkey’s priority will be to tackle its catastrophic economic problems, something that will require the goodwill, cooperation and support of Europe and the US.

Readiness by Cyprus to enter into meaningful discussions to resolve the Cyprus problem will be supported by Europe and the US. Turkey may also consider this as key to gaining the cooperation of Europe and the US and becoming more amenable to working with them towards a solution.

A cooperative approach by all is the one most likely to produce the best possible results.

Preparing the ground also includes concluding the discussions with Israel regarding the Aphrodite-Ishai unitization dispute. But with changes in government, both in Israel and in Cyprus, this may have to wait until the second half of 2023.

With prospects for developing Cyprus’ EEZ being low in 2023, the new President must prioritize the development of renewables from the currently low levels and the development of an integrated, long-term, strategy for energy and the economy, currently lacking.

Aramco sees oil demand

picking up on China and aviation recovery

The world’s biggest oil company is confident demand will pick up strongly this year as China reopens its economy and the aviation market recovers.

“We are very optimistic in terms of demand coming back to the market,” Saudi Aramco’s chief executive officer, Amin Nasser, said in an interview. “We are starting to see good signs coming out of China. Hopefully, in the next couple of months, we’ll see more of a pickup in the economy there.”

Demand for jet fuel is now around 1mn barrels a day below pre-pandemic levels, according to Nasser, roughly half the figure from a year ago. “It’s picking up,” he said at the World Economic Forum in Davos.

Oil prices whipsawed in 2022. Brent crude surged to almost $130 a barrel in the wake of Russia’s attack on Ukraine, but slumped in recent months as the Chinese, US and European economies slowed. It’s trading at about $86.80 a barrel, up 1%

since the end of December.
Many Wall Street banks, including Goldman Sachs Group Inc, expect it to climb above $100 a barrel in the second half of the year. They cite a global economic rebound by that time, low fuel stockpiles in nations such as the US and the potential for Russian exports to drop as the west tightens sanctions.
Nasser reiterated that companies need to invest more in oil production. Idle capacity stands at 2mn barrels a day, barely above total demand of 100mn barrels, and will probably drop as China ends its coronavirus lockdowns, he said.
The world needs 4-6mn barrels a day of new production just to make up for the natural decline in existing fields, according to the CEO.
“We’re moving into the situation where we’re eroding spare capacity and any supply interruptions will have a huge impact,” he said.
“We will be in a situation similar to natural gas,” he said, referring to how prices for the fuel jumped to the equivalent of $250 a barrel after Russia’s invasion.
The Saudi Arabian state-controlled company sees oil demand continuing to grow for the rest of the decade, even as electric vehicles become more popular and investors pour money into renewable energy.
“It’s offsetting some of the demand” for oil, said the CEO. Still, crude consumption will “definitely” be higher in 2030.
The increasing use of petrochemicals – feedstocks for everything from plastics to fertilisers and clothes – is positive for Aramco, he said.
The company wants to convert 4mn barrels a day of crude into petrochemicals by the end of the decade. It’s looking at more investments in Chinese refineries and liquid-to-chemical plants as part of that push, said Nasser.
“We’re in serious discussions with so many entities” in China, he said.
Last year, Aramco and its chemicals subsidiary, Sabic, said they were planning to build a 320,000 barrels-per-day refinery

at Gulei, a coastal Chinese town.

Aramco is also investing billions of dollars in hydrogen, a fuel seen as crucial to the transition to cleaner forms of energy. The Saudi firm aims to export blue hydrogen, made by converting natural gas and capturing the carbon dioxide emitted in the process, on a large scale from about 2030.

Talks with potential importers in Japan and South Korea are progressing, though they'll probably need to get assurances of financial support from their governments before they sign any supply contracts, Nasser said.

"They think they'll be able to do it in 2023," he said. "We'll see."

Blue hydrogen may end up costing the equivalent of around $250 a barrel of oil, Nasser said, though Aramco won't know until it's done more research.

"It's not going to be $80 or $100" a barrel, he said. "This is cleaner — it costs more."

Negotiations with European firms are proving tougher, primarily because they want to wait for technological advances to bring down the price of blue hydrogen.