

The true cost of ocean plastic pollution



The problem of maritime plastic-waste pollution first became apparent in the 1970s. In the half-century since then, the problem has become ever more widespread, as scientific expeditions conducted by the Tara Ocean Foundation (of which I am executive director) have shown. Large pieces of debris, such as fishing nets, and their disastrous effects on marine life, are the most visible symptom. Such waste is estimated to kill more than one million seabirds and over 100,000 marine mammals annually, often through entanglement or suffocation, and promotes transport of invasive species, triggering a cascading effect on the ecosystems in which they play a central role.

Less visible, but more pervasive, are microplastics, which

have been found in the deepest ocean trenches and all types of marine life. Microplastics can, among other things, modify bacterial and viral communities and disperse chemical toxins in food chains (often after being ingested by marine organisms). Some of these toxins, such as phthalates, are associated with the chemistry of plastics, while others, such as pesticides and heavy metals, are absorbed by the plastic before it reaches the ocean and enters the food chain.

How these toxic substances interact with plastics has been the subject of much study. Plastic is comprised of monomers that have been chemically bonded to form long chains of polymers – ethylene, styrene, and propylene become polyethylene, polystyrene, and polypropylene. But the process of polymerisation is often imperfect, and some of the unpolymerised monomers that remain in plastic, like different types of styrene and bisphenol, pose major environmental and health risks.

Moreover, other chemical additives, including plasticisers, fillers, colorants, flame retardants, and antioxidants, are incorporated into polymer formulations to modify their properties. And non-intentionally added substances (NIAS) – impurities, raw materials used in manufacturing, byproducts, and degradation products – bind to finished plastics. In most cases, because free monomers, additives, and NIAS are simply trapped within the tangle of polymer chains, rather than being chemically bound to them, they are more likely to leach out during the production, use, and disposal of plastic, migrating into liquids, gases, and solids. Some 16,000 such molecules have been identified, but their effects are still not fully known, nor is their toxicity, which can change depending on how they are combined. What we do know is that one-quarter of these 16,000 molecules are pose a hazard to human health or the environment by disrupting biochemical processes in living organisms.

Halting the flow of microplastics and toxic pollutants into

the world's bodies of water is a Sisyphean task. Nevertheless, scientists are trying to stem the problem. For example, the Tara Europa expedition, in coordination with the European Molecular Biology Laboratory and more than 70 scientific institutions across the continent, has spent the past two years investigating how these hazardous substances make their way into the seas and oceans bordering Europe. The mission plans to share its findings soon.

But the generation of toxic waste and debris is not the only way that plastic can harm ocean health. The plastics industry has been a major driver of climate change, accounting for an estimated 3.4% of global greenhouse-gas (GHG) emissions. Plastic production is on track to contribute 15% of GHG emissions by 2050, exacerbating global warming and thereby increasing the threats to marine life, which is sensitive to rising water temperatures.

Because plastic degrades the entire biosphere, not just the ocean, it is not a waste problem that can be solved by a few sustainability-minded citizens' recycling efforts. This is a systemic crisis that requires an economy-wide solution. A better approach is to understand plastic as one of the "new entities" that must not leak into the environment, a view initially formulated by the Stockholm Resilience Centre in its work on planetary boundaries and later endorsed by the United Nations. While acknowledging the impossibility of defining a precise threshold for harm, such an approach highlights the need for a drastic reduction in plastic use.

Research suggests that it would be economically feasible to halve global plastic production at a cost which would almost surely be less than the cost of inaction. But, according to a recent study by researchers at the University of California, Berkeley, even this reduction would not be enough to limit global warming to 1.5° Celsius above preindustrial levels, the target set by the Paris climate agreement. Instead, they found that meeting this goal would require a 75% reduction in

plastic production compared to 2015.

'THE POSSIBILITIES ARE ENDLESS': ENERGY EXPERT LAUNCHES NEW BOOK ON RESOLVING MARITIME BOUNDARIES



ZOUK MOSBEH, 23-04-2025: Energy expert Roudi Baroudi signed copies of his latest book during a launch event at Notre Dame University – Louaize on Wednesday.

The book, "Settling Maritime Boundaries in the Eastern Mediterranean: Who Will Be Next?", is part of Baroudi's years-long effort to promote regional energy cooperation. In it, the author makes the case that if East Med countries are serious about exploiting their offshore hydrocarbons, they need to settle their maritime borders in order to attract the major

energy companies whose technical and financial muscle are virtual prerequisites for undersea oil and gas activities.



Co-hosted by the Office of NDU Publications (which published the book) and the university's Office of Research and Graduate Studies, the signing event took place at NDU's Pierre Abou Khater Auditorium. All proceeds from sales of the book will go toward Student Financial Aid at NDU.

Inspired by the landmark US-brokered October 2022 agreement that saw Lebanon settle most of its maritime boundary with old foe Israel, the new tome stresses the need to define other East Med borders as well, including those between Lebanon and Cyprus, Lebanon and Syria, Syria and Cyprus, Cyprus and Turkey, and Turkey and Greece.

Publication was delayed by the outbreak of the Gaza war in October 2023, but the author says that conflict – which also led to massive destruction and loss of life in Lebanon – only underlines the need for regional players to find a new modus vivendi.



“We can’t keep doing the same things over and over again, and then expecting a different outcome,” Baroudi said during the NDU event. “For the first time in many years, all of Lebanon’s branches of government – Parliament, Cabinet, and Presidency – are fully functional. We have to start thinking of ways to reduce the scope for friction, to open the way for foreign investment, and hopefully start producing offshore gas.”

“Almost all of Lebanon’s energy needs are met by imported hydrocarbons; imagine if we discover enough gas to provide 24/7 electricity to all Lebanese,” he added. “And what if we had enough to start exporting it, too? Lebanon’s coast is less than 100 kilometers from Cypriot waters: this means that once the island and its partners have built a pipeline and/or a liquified natural gas plant, Lebanese gas could flow straight into the entire European Union, one of the world’s largest energy markets. The possibilities are endless. And now imagine all of the countries of the region having similar prospects – just because they finally got around to figuring out where their national waters begin and end.”

In addition to the manifold benefits of energy security and lucrative export revenues to fund domestic investment in things like education, healthcare, fighting poverty, and transport, Baroudi said the exercise of negotiating sea

borders could help build trust and good will.

“There isn’t enough of those commodities in the East Med region, and often for good reason,” he explained. “But we have to start somewhere, and maritime boundaries are a great place to do that because they open the way for investment and various forms of cooperation, direct or indirect, including fisheries monitoring and regulation, marine protected areas, tourism, weather forecasting, search and rescue, etc.”

With more than 47 years of experience, Baroudi has worked in multiple fields, from electricity, oil and gas, and petrochemicals to pipelines, renewables, and carbon pricing mechanisms. He also has led policy and program development with, among others, the World Bank, the US Agency for International Development, the International Monetary Fund, and the European Commission. The author of several books – including “Climate and Energy in the Mediterranean: What the Blue Economy Means for a Greener Future” (2022) – as well as numerous studies and countless articles, his expertise has made him a highly sought-after speaker at regional energy and economic conferences. Currently serving as CEO of Energy and Environment Holding, an independent consultancy based in Doha, he is also a Senior Fellow of the Transatlantic Leadership Network, a Washington think-tank. In 2023, he received the TLN’s Leadership Award in recognition of his efforts to promote peace.

**ENERGY EXPERT’S NEW MARITIME
BOUNDARY BOOK ARRIVES AMID**

**WAVE OF EAST MED BORDER
DIPLOMACY**

Roudi Baroudi

SETTLING MARITIME BOUNDARIES IN THE EASTERN MEDITERRANEAN: WHO WILL BE NEXT?

 **NDU**
NOTRE DAME
UNIVERSITY
— LOUAÏZÉ —
LEBANON
PRESS

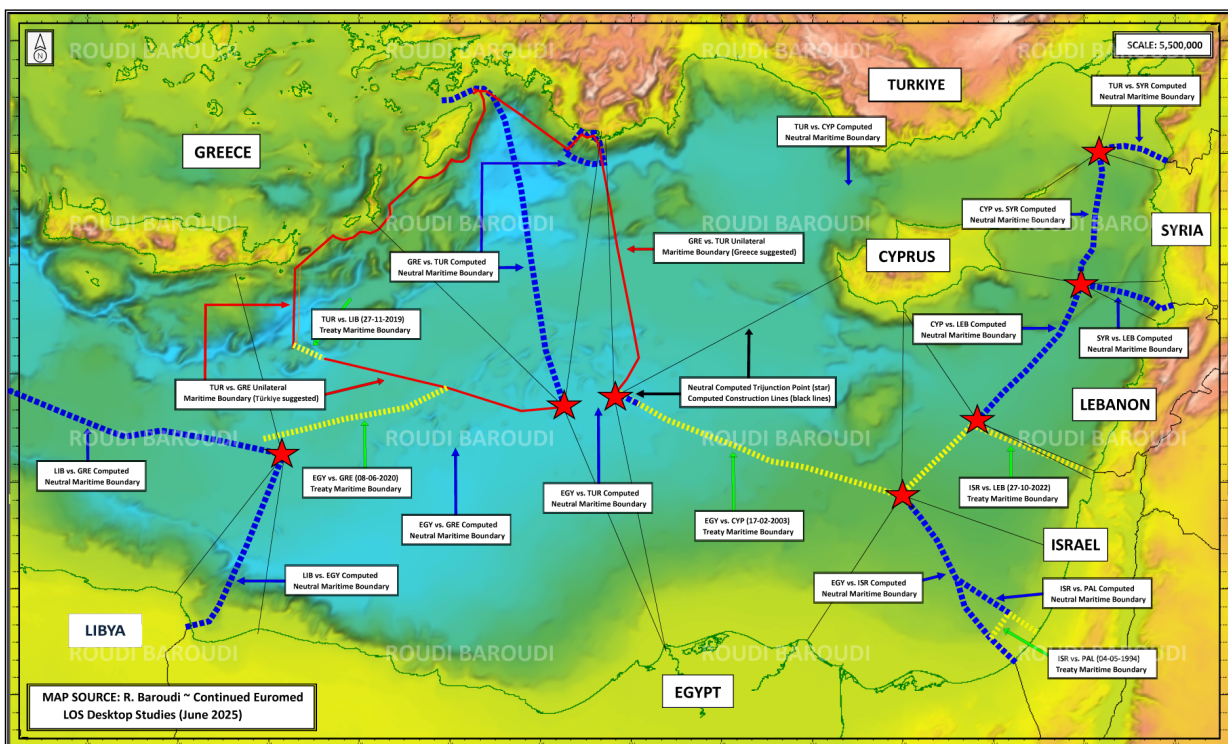
Recent weeks have seen multiple contacts among several countries including – Cyprus, Greece, Lebanon, and Syria – aimed at increasing cooperation among East Mediterranean

countries.

This flurry of diplomatic activity provides the perfect backdrop as Notre-Dame University – Louaize is pleased to announce that it will host a book launch and signing on April 23rd, welcoming international energy expert Roudi Baroudi as he releases his latest work, “Settling Maritime Boundaries in the Eastern Mediterranean: Who Will Be Next? ”

The book outlines the need for countries in the region to resolve their maritime boundaries, the energy and other economic opportunities that doing so could open up, and the legal, scientific, and technical means of ensuring that delimitation is fair and equitable. The volume even carries exclusive, high-precision maps indicating with unprecedented accuracy where the negotiated or adjudicated sea borders of several East Med countries would be, as per United Nations rules.

EURO MED RESOLVED & UNRESOLVED MBL 2025



Yellow lines - Fully Treated MBs.
Dark Blue dashed lines - 100% neutral strict equidistance lines (unresolved/disputed)
Red solid lines - Unilateral Claimed MBL

The book emphasizes that settling these unresolved boundaries – including those between Lebanon and Cyprus, Lebanon and Syria, Greece and Turkey, Turkey and Syria, Syria and Cyprus, and Turkey and Cyprus – is a necessary first step for those seeking to develop offshore energy resources. The advent of energy security and possible lucrative exports could have a profound effect on several states, allowing them to make historic investments in schools, hospitals, and transport infrastructure, all while creating well-paying jobs and reducing poverty and inequality. Baroudi also highlights a series of cross-border benefits, including reducing potential irritants between neighbors, building trust, and opening up new avenues for cooperation.

As a 47-year veteran of the energy industry, Baroudi has a wealth of experience to share, and does so frequently as an author and speaker, promoting energy as a catalyst for dialogue and peace wherever and whenever he can. He will be on hand for the launch at NDU's Pierre Abou Khater Auditorium beginning at 12:00 noon, answering questions and signing copies of the book for anyone who purchases one.

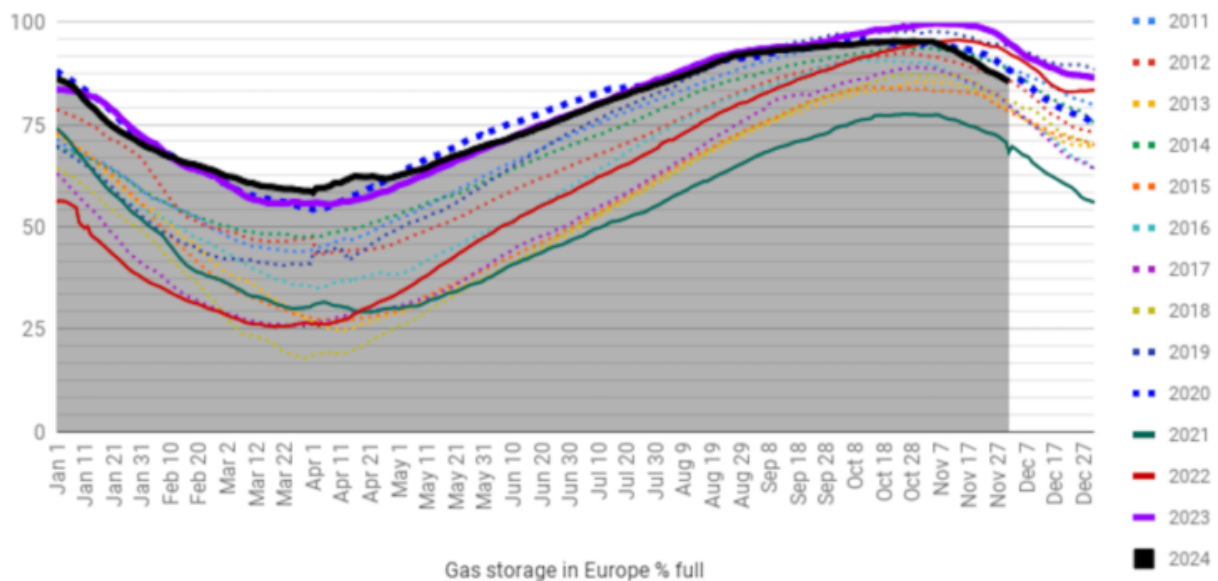
All sale proceeds will go toward Student Financial Aid at NDU.



Europe gas storage concerns fuel market uncertainty

European gas storage % full

source: GIE AGSI



The gas held in storage covers about 30% of the EU's daily needs during the winter, rising to 50% on the chilliest days

The relatively low amount of gas in storage in the European Union – with levels 36% below where they were this time last year – is putting upward pressure on prices, according to the International Energy Agency.

Europe's stockpiles of natural gas have been a closely watched metric since the invasion of Ukraine triggered a dramatic downturn in Russian supply to the region.

The network of gas storage sites across the European Union is the second largest in the world after the US and has become an increasingly important buffer against supply shocks and price spikes.

As Moscow squeezed the flow of pipeline gas, the EU had managed to avoid a winter supply crunch by curtailing overall gas demand and boosting its imports of liquefied natural gas. But 2025 could up the pressure.

Europe leans on its gas inventories in the winter, when average consumption doubles as the heating is turned up.

While the continent's gas suppliers – from Norway and Algeria to Qatar and the US – typically boost their production to maximum levels, it's not enough to meet the increased demand.

As a result, the gas held in storage covers about 30% of the EU's daily needs during the winter. This proportion can top 50% on the chilliest days, especially if wind speeds are low and electricity output from renewable sources slumps.

The energy crisis sparked by Russia's invasion of Ukraine saw the EU introduce legally binding targets for gas storage across the bloc from 2022. This was to ensure security of supply.

Inventories must be at least 90% full by November 1 and there are also interim milestones to be met in February, May, July and September. Some countries fell short of their goals in February 2025.

The five-year agreement allowing Russian gas to transit through Ukraine and into Europe expired at the end of 2024. Prior to the deal coming to an end, the route had accounted for less than 5% of Europe's gas needs, down from more than 15% at the start of the accord.

Moscow didn't completely turn off the taps to the region; Russian pipeline gas is still flowing via the TurkStream line through Türkiye.

If US President Donald Trump succeeds in brokering a peace deal between Russia and Ukraine, there's a possibility that the transit agreement could be revived.

The EU's gas stockpiles quickly depleted over the 2024-25 heating season. Colder weather than a year earlier and more windless days increased demand for gas and forced countries to tap their storage.

Combined with the loss of Russian pipeline gas via Ukraine, the bloc's depots were only 44% full in mid-February, well below the 65% seen a year prior and the lowest level for this time of year since the 2022 energy crisis.

There's no immediate threat of Europe running out of gas, but there are concerns about the pace of storage refills needed to be ready for the next winter.

Fears over how Europe will replenish its storage stoked a surge in the price of summer gas contracts and drove near-term prices to a two-year high on February 10. In turn, energy

bills have remained elevated, prolonging pain for Europe's households and businesses, just as recession risks are back in focus for the likes of Germany and the UK.

European consumers and governments are now entering their fourth year of high and volatile gas prices.

If a peace deal is reached between Russia and Ukraine, it could revive the transit of gas via that route into Europe. Whether the EU would return to importing Russian pipeline gas remains to be seen.

It's unlikely the bloc would want to relinquish control of its energy security back to Moscow.

MPHC plans to invest QR2.5bn in capital expenditure over next five years



MPHC spent QR415mn in 2024 on maintenance, safety, and environmental projects, including its share in a new PVC plant (QR219mn last year)

Mesaieed Petrochemical Holding Company plans to invest QR2.5bn in capital expenditure over the next five years, Abdulla Yaaqob al-Hay, manager, Privatised Companies Affairs at QatarEnergy, said at the MPHC Annual General Assembly on Monday.

He said MPHC spent QR415mn in 2024 on maintenance, safety, and environmental projects, including its share in a new PVC plant (QR219mn last year).

The project is progressing as per the timetable for completion by second half of 2025, with a capacity of 350,000 tonnes per

year.

Furthermore, in the petrochemical segment, capital expenditure for this year focused on several key projects aimed at enhancing operational efficiency and sustainability, while upholding the best standards for HSE.

In addition to adding value for shareholders and attracting investment opportunities, the Group has signed a memorandum of understanding (MoU) with key stakeholders to develop a state-of-the-art salt production facility under QatarEnergy's TAWTEEN localisation programme.

This facility will produce industrial and food-grade salt, ensuring Qatar's self-sufficiency and supporting the local market. The Group is currently in the feasibility study phase and will announce progress in the future.

In 2024, MPHC maintained its excellent HSE record, receiving international certifications, improving process safety, and achieving 17 consecutive years without heat-stress incidents at some facilities.

MPHC, he said, remains committed to maintaining its position as a low-cost operator without compromising HSE standards.

In his opening remarks, Ahmad Saif al-Sulaiti, Chairman, MPHC said, "In 2024, uncertainty and oversupply challenges persisted, complicating margin evolution amid softened global demand. Energy and commodity prices decelerated as global supply was restored, easing supply chain bottlenecks and allowing producers to restart capacities. This added pressure on global markets and influenced price trajectories.

"Additionally, hawkish monetary policies to combat inflation led to high-interest rates, impacting global GDP, reducing consumer spending, and affecting demand for most commodities. Despite these hurdles, global downstream demand began to stabilise during the second half of the year."

He noted the supply and demand environment were impacted by several factors throughout the year. Notably, the global economic environment presented challenges, particularly in the first half of the year, which constrained consumer purchasing power and softened demand.

Despite challenging macroeconomic conditions, MPHC demonstrated resilience and agility, achieving commendable results throughout 2024, even with segmental shutdowns.

These turnarounds were essential to ensure the long-term reliability and efficiency of the assets, and maintaining the competitive edge in the market.

“Our dedication to HSE, product quality, and comprehensive employee safety remains unwavering, ensuring operational reliability in accordance with international standards,” al-Sulaiti said.

MPHC achieved a net profit of QR719mn in 2024 and recorded an earnings per share (EPS) of QR0.057.

Considering the current market projections in both the medium and short terms, as well as the company’s capital spending and operational programs, the Company’s Board of Directors proposed a second half 2024 dividend distribution of QR377mn, equivalent to QR0.03 per share.

This brings the annual dividend distribution to QR0.057 per share for the full year. This dividend represents a 100% net earnings payout ratio.

Brazil's Climate Push Must Start at Home



As the current G20 president and host of next year's United Nations Climate Change Conference, Brazil has sought to establish itself as a global climate leader. But to have the biggest impact, Luiz Inácio Lula da Silva's government must lead by example, which means committing to ambitious emissions targets and energy policies.

AMSTERDAM – Ever since Brazilian President Luiz Inácio Lula da Silva returned to office in 2023 and told the world that Brazil is “back on the world stage,” the government has endeavored to establish itself as a global climate leader. As the current G20 president, Brazil is pushing for a sustainable bioeconomy and scaled-up climate finance – goals that it will surely continue to pursue as the host of next year's United Nations Climate Change Conference (COP30). Moreover, the country recently formed a troika with the hosts of COP28 (the United Arab Emirates) and COP29 (Azerbaijan) to preserve the Paris climate agreement's goal of limiting global warming to 1.5° Celsius.

The Brazilian government has not been afraid to challenge

rich countries and individuals as part of its efforts to halt the rise in global temperatures. But to have the biggest impact, Brazil must lead by example. As the saying goes, charity begins at home. The timing could not be better: countries must submit more ambitious 2035 emissions-reduction targets, known as nationally determined contributions (NDCs), by February 2025.

The need to cut greenhouse-gas (GHG) emissions has never been more urgent for Brazil, which was recently hit by record flooding and has been fighting devastating forest fires for weeks. To be sure, investing in adaptation and resilience requires increased financial flows from the wealthy countries responsible for the bulk of historic pollution to vulnerable countries suffering the worst effects of global warming. But reducing fossil-fuel emissions and extraction, which has harmed traditional and indigenous communities' health, destroyed their land, and diminished their capacity to provide for their families, is also a matter of economic and social development. Brazil must devise an energy policy that works for these communities.

The share of electricity generated from wind and solar power is expanding rapidly, and these renewable-energy sources are becoming cheaper by the day. Brazil has abundant sun and wind and the tools to operate these technologies successfully. But, equally important, local communities are already expanding clean-energy infrastructure and have created innovative and effective solutions to participate in the decarbonization decision-making process.

Various community-led and decentralized clean-energy projects, often developed in partnership with NGOs, are being launched across Brazil, from isolated villages in the Amazon to densely populated *favelas* (informal settlements) in Rio de Janeiro. At the same time, the country's indigenous peoples have developed robust consultation protocols for the design and implementation of public and private renewable-energy projects

on their land.

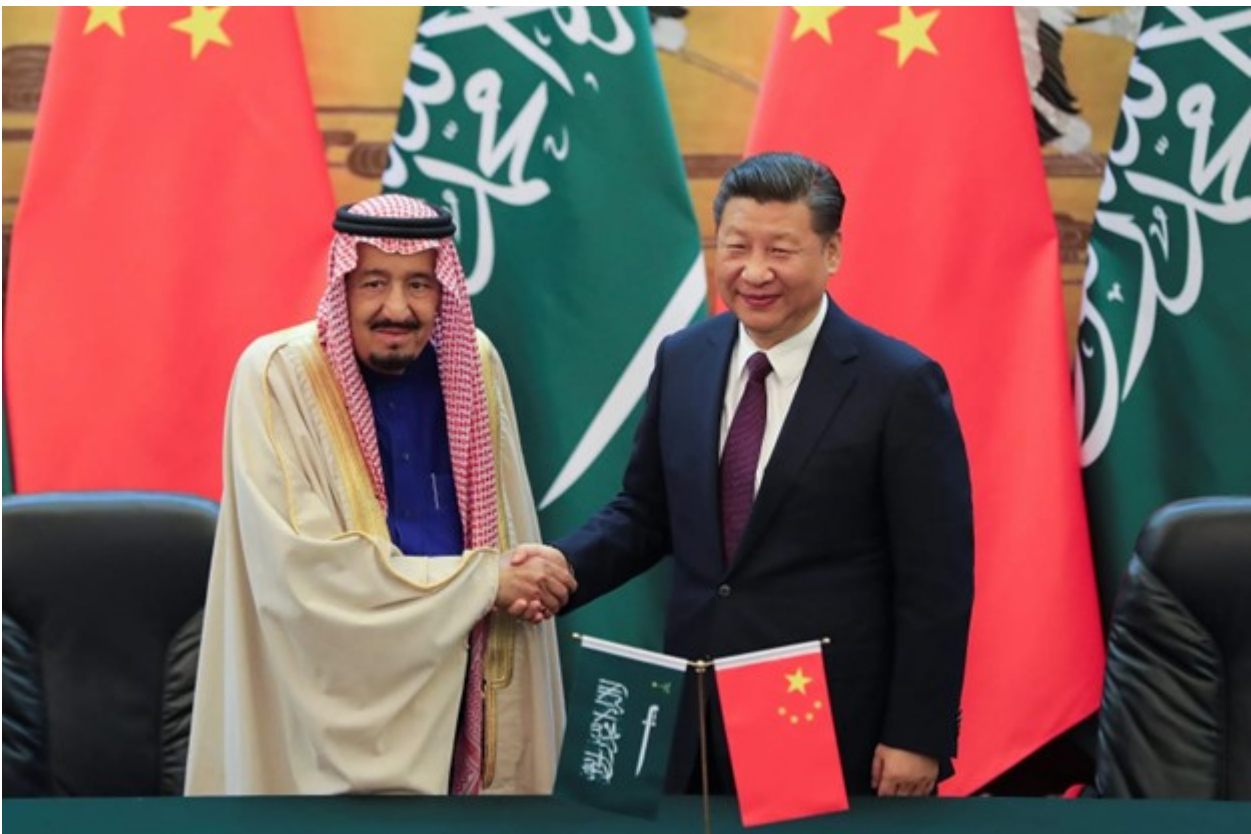
Last year, COP28 closed with an agreement to “transition away from fossil fuels” – the first time such a call has been made at the climate summit – and to triple renewable energy and double energy efficiency by 2030. To honor that agreement, Lula’s government must challenge the false notion that fossil fuels are necessary for development and can complement efforts to scale up and provide equitable access to community-centered renewable energy.

To show the world that Brazil can lead the global renewable-energy transition by example, its updated NDC must commit to bold action, such as stopping new fossil-fuel projects and shutting down existing ones, and deploying the resources required to meet the global goal of tripling renewable-energy generation. Moreover, to advance the goal of energy justice, the government should implement policies aimed at ensuring that solar and wind power reaches vulnerable communities.

If the Brazilian government creates a national platform that provides operational support to these clean-energy solutions, the country can show the world that it is possible to decarbonize while putting people first. In fact, this is not only possible but essential.

A few years ago, the world came together to combat the COVID-19 pandemic. Governments quickly poured resources into vaccine development and production, successfully creating the tools to solve a novel problem in record time. In this case, the world has everything it needs to accelerate the energy transition and limit global warming; all that it is missing is the political will to commit to – and follow through on – ambitious targets and policies. Brazil can and should be one of the first countries to demonstrate it.

AS AMERICA “PIVOTS TO ASIA”, SAUDI ARABIA IS ALREADY THERE – BY ROUDI BAROUDI



The biggest news in the energy industry last week was that a state-owned Chinese company had completed a massive offshore oil and gas platform for Saudi Aramco. Breathless media reports shared impressive details about the facility’s record-setting size, weight, and output capacity, with some describing it as a massive bet on continuing strong demand for fossil fuels despite the meteoric rise of renewables.

The real significance of this news, though, is not to be found at the Qingdao shipyard where it was made, at the headquarters of the China Offshore Oil Engineering Company that built it, or at the Marjan field off Saudi Arabia’s east coast where it

will be installed and operated.

In fact, in order to truly appreciate the implications involved, one needs to travel back in time a little more than 50 years. For on 8 June 1974, the United States and Saudi Arabia reached a historic agreement that has bound the two countries ever since.

Signed by then-US Secretary of State Henry Kissinger and then-Minister of Interior Prince Fahd bin Abdulaziz, the pact established two joint commissions tasked, respectively, with increasing bilateral economic cooperation and with determining the kingdom's military needs. It also created several joint working groups responsible for specific elements to support growth and development, including efforts to: a) expand and diversify Saudi Arabia's industrial base, beginning with the manufacture of fertilizers and other aspects of the petrochemical sector; b) increase the number of qualified scientists and technicians available to make the most of technology transfers; c) explore partnerships in areas like solar energy and desalination; and d) find ways to cooperate in agriculture, especially in the desert.



Henry Kissinger with Prince Fahd of Saudi Arabia, 1974

Contrary to widespread misperceptions, the agreement did not say anything about Saudi crude being priced and/or transacted exclusively in US dollars. In a side-deal that remained secret until 2016, however, the United States pledged full military support in virtually all circumstances and the Kingdom of Saudi Arabia committed to investing a massive share of its oil revenues in US Treasury bills. While there was no public quid pro quo, therefore, this was to some extent a distinction without a difference: the world's biggest oil exporter ended up spending hundreds of billions of dollars on American debt and American-made weapons, making it only sensible that the vast majority of its crude sales would be in greenbacks. By extension, the sheer weight of Saudi oil in world markets – and especially within the Organization of Petroleum Exporting Countries – virtually guaranteed that the dollar would become

the de facto default currency of those markets, Petrodollars.

These arrangements suited both sides at the time, which featured a very particular set of circumstances. The previous year, as Egypt and Syria attempted to regain territories occupied by Israeli forces since the 1967 war, US President Richard Nixon authorized an unprecedented airlift of weaponry – everything from tanks, artillery, and ammunition to helicopters, radars, and air-to-air missiles – to Israel. Arab oil producers responded by playing their strongest card, announcing an oil embargo against states that supported the Israeli war effort. That led directly to supply shortages, soaring prices, and long lines at filling stations across the United States and many other countries, too, and indirectly to several years of higher inflation. Although the embargo had been lifted in March 1974, Washington was keen to prevent similar shocks in the future.

The American economy was particularly vulnerable to longer-term repercussions because of several factors, including a general slowdown caused by its long, expensive, and ultimately unsuccessful war in Vietnam. The real problem, though, stemmed from another issue: in 1971, as the dollar continued to lose ground against major European currencies, Nixon had taken the United States off the gold standard, gutting the Bretton Woods arrangements put in place after World War II and throwing foreign exchange markets into disarray. With the Cold War as backdrop, America appeared to be losing ground in its strategic competition with the Soviet Union.

The so-called “side-deal”, then, was actually far more important than the public agreement because it would restore the dollar’s primacy in international markets, making it once again the world’s favorite reserve currency, while simultaneously reducing the likelihood of future Arab oil embargos. The new system worked very well for a very long time: the US economy regained its stability, and Saudi Arabia embarked on a long program of socioeconomic development that

continues to this day. Even as the Americans have sought further protection by reducing their reliance on Saudi and other OPEC crude, their bilateral partnership and the dollar's general prevalence in the oil business have likewise persisted despite all manner of diplomatic spats, crises, and other obstacles.

Back in the present-day, the Soviet Union is no more, and although the United States has an even more formidable strategic rival in China, this competition carries neither the day-to-day intensity nor the seeming inevitability of nuclear Armageddon that the Cold War engendered. In addition, the United States is now producing more crude oil than any country ever has, further insulating its economy against exogenous shocks, while China's rapid expansion has made it the world's most prolific energy importer. In fact, Washington is years into a "pivot to Asia" that will see it focus less attention on the Middle East.

Meanwhile, Saudi Arabia is now led by Crown Prince, Mohammed bin Salman (MBS), a young and highly ambitious ruler who has shown himself more than willing to act independently of American desires or even demands. Accordingly, it should not surprise anyone that the behemoth facility now being transported to Marjan is just the most visible tip of the Sino-Saudi iceberg. There is a burgeoning relationship driven by complementary needs, with both parties investing in one another's economies and cooperating on large-scale energy and industrial projects.

Given all of the foregoing, it is much too early to declare the end of an era. Even if rumors that the Saudis will soon start selling oil futures contracts in yuan or other currencies turn out to be true and the results include an erosion of the dollar's value, the US-Saudi economic relationship remains very much in place, as do defense ties ranging from procurement and maintenance to joint exercises and training. This is not to mention the approximately 60,000

Saudi students who study at American universities every year, or the countless other business and/or personal ties nurtured over decades.



Then, US President, Jimmy Carter receiving the Crown Prince Fahd of Saudi Arabia at the White House in Washington, 1977. Seeing the continuation of the Petrodollar Agreement.

All the same, a new era has definitely begun: just as the Americans have opened up other avenues to secure their energy needs, the Saudis are now moving decisively to diversify their foreign partnerships and have been doing so for many years. Inevitably, the global oil and gas economy's center of gravity will shift eastward, but how could it be otherwise when China and several other Asian economies have become such powerhouses? The diversification path will almost certainly include occasional stretches where Riyadh will have to make difficult decisions, but this, too, reflects the confidence

that MBS has in his country's ability to determine its own destiny.

Roudi Baroudi has worked in the energy sector for more than four decades, with extensive experience in both the public and private sectors. Having advised dozens of companies, governments, and multilateral institutions on program and policy development. He has been a loyal advocate for energy stability and peace. He is also the author or co-author of numerous books and articles, and currently serves as CEO of Energy and Environment Holding, an independent consultancy based in Doha, Qatar.

السعودية - الصين: شراكة نفطية ترسم معالم عصر جديد في الطاقة

يمثل #التعاون النفطي بين السعودية والصين أحد أهم الشراكات الاستراتيجية في العصر الحديث، إذ يجمع بين أكبر مصدر للنفط في العالم وأكبر مستورد له. إلا أن هذا التعاون لا يقتصر على تجارة النفط وحدها، بل يشمل استثمارات مشتركة تهدف إلى تعزيز العلاقات الاقتصادية الثنائية، خصوصا مع توسع "#أرامكو السعودية" في السوق الصينية.

!"منصة "مرجان

بلغت #الاستثمارات الصينية في السعودية 16,8 مليار دولار في عام 2023، في مقابل 1,5 مليار دولار في عام 2022، استنادا إلى بيانات بنك الإمارات دبي الوطني. في هذا الإطار، يوضح الدكتور خالد رمضان، الخبير النفطي ورئيس المركز الدولي للدراسات الاستراتيجية بالقاهرة، لـ "النهار" أن هذا #لتعاون النفطي السعودي - الصيني يؤثر إيجابا في #أسواق الطاقة العالمية، "وما منصة

'مرجان' النفطية البحرية التابعة لأرامكو في الصين إلا ترجمة فعلية لهذا التعاون"، وستستخدم لزيادة الإنتاج السنوي لحقل المرجان النفطي إلى 24 مليون طن.

وتعد منصة "مرجان" أثقل منصة نفط وغاز بحرية في الصين مخصصة للأسواق الخارجية، وواحدة من أكبر المنصات في العالم، فهي أطول من مبنى مكون من 24 طابقًا، وتعادل مساحة سطحها 15 ملعب كرة سلة، ويمكنها جمع ونقل 24 مليون طن من النفط و7,4 مليارات متر مكعب من الغاز سنويًا.

شراكة في التنمية

يضيف رمضان: " أبرمت أرامكو السعودية في عام 2023 صفقات بقيمة 8 مليارات دولار مع شركاء صينيين في قطاعي المنبع أي الاستكشاف والإنتاج، والمصب أي التكرير والتوزيع". إلى ذلك، توظف نظرتها المتفائلة إلى إمكانات النمو في الصين على المدى الطويل، والفرص عالية الجودة، "من أجل توسيع عملياتها المتكاملة في قطاع الصناعات التحويلية الصينية، والتي يمثل الاستثمار فيها أهمية". "استراتيجية لنمو أعمال أرامكو في آسيا

يلفت رمضان إلى أن دور أرامكو يتجاوز الاستثمار، "لأنها تريد أن تكون شريكًا رئيسيًا في التنمية الاقتصادية في الصين، والاستفادة من الفرص الجديدة التي تلوح في الأفق، من خلال شراكات استراتيجية تعزز وجودها في قطاع الصناعات التحويلية في الصين، بما فيها المواد الكيميائية والمواد المركبة المتقدمة والمواد غير المعدنية".

وهكذا، تظل الصين محورية في استراتيجية أرامكو لتنوع محفظتها، لتشمل منتجات كيميائية أكثر تخصصًا وعالية القيمة، خصوصًا أن الصين تمثل 40 في المئة من مبيعات المنتجات الكيميائية العالمية.

تعزيز سلاسل التوريد

الصين ثاني أكبر اقتصاد في العالم، لذا تعد أكبر مستورد للنفط الخام، إذ تستهلك 14 مليون برميل يوميًا، تليها أوروبا بنحو 12,8 مليون برميل يوميًا. من ناحية أخرى، تعد السعودية أكبر مصدر للنفط الخام في العالم، تليها روسيا وكندا والنرويج ونيجيريا وانطلاقًا من هذا الواقع، "سهل أن نرى كيف يمنح توسيع التعاون النفطي بين الصين والسعودية الأسواق استقرارًا أكبر، ويعزز أمان سلاسل الإمداد النفطية، ويزيد فرص المنافسة في الأسواق العالمية"، بحسب ما يقول الخبير النفطي الدولي رودي بارودي.

ويضيف لـ "النهار": "بالنسبة إلى السعوديين، سيضمنون شريكًا استراتيجيًا طويل الأمد، لن يشتري النفط الخام فحسب، بل يستثمر أيضًا في سلسلة النفط اللاحقة، من المصافي إلى مصانع البتروكيماويات". فأرامكو السعودية، أكبر شركة نفط في العالم، مستثمر كبير في مشروع "رونغشينغ سينوبيك فوجيان" للتكرير (Rongsheng Sinopec Fujian Refining & البتروكيماويات

وفي شركتين كبيرتين للبتروكيماويات هما (Petrochemical venture)، (Rongsheng Petrochemical) و"رونغشينغ (Hengli Petrochemical) "هينغلي وتفاوض أرامكو لشراء 10 في المئة في "هينغلي"، (Hengli Petrochemical). وتسعى لإبرام صفقات مماثلة مع شركتين صينيتين أخريين، بعدما أبرمت صفقة منفصلة قيمتها 3,4 مليارات دولار لشراء حصة في شركة "رونغشينغ" في العام الماضي.

تحالف مؤثر

في الضفة الأخرى، استثمرت الصين مليارات الدولارات في السعودية، "حيث دخلت الشركات الصينية على خط مشاريع سعودية واسعة النطاق تركّزت في معظمها في التكرير والبنية الأساسية للغاز"، بحسب بارودي، الذي يضيف: "من شأن التعاون الطويل الأجل بين البلدين أن يعيد تشكيل أجزاء من المشهد النفطي والبتروكيماوي العالمي ويؤكد الخبر النفطي الدولي أن أرامكو السعودية مستثمر كبير في صناعة الهيدروكربون في الصين، "والجانبان يركزان جهودهما على توسيع مصانع إنتاج السوائل وتحويلها إلى كيماويات في مصفاة الجبيل بالسعودية، وفي وحدة البتروكيماويات في نينغبو تشونجين بالصين".

ويرى بارودي أن هذا التطور في العلاقة التصنيعية والتحويلية هو "نتاج علاقة استراتيجية دبلوماسية سعودية - صينية، بدأت تحاك قبل أكثر من ثلاثة عقود، لا تقتصر على التجارة والاستثمارات المتبادلة، بل تتعداها إلى تحالف تنعكس آثاره على الاقتصاد العالمي، ما من شأنه أن يقلل من تأثير أي تباطؤ اقتصادي في المستقبل، وأن يحمي "أسواق الهيدروكربون والبتروكيماويات".

إلى جانب ذلك، يعزز التعاون بين السعوديين والصينيين التحول العالمي في مجال الطاقة، بفضل التوافق في الرؤى التنموية بين البلدين. فرؤية "السعودية 2030" ومبادرة "الحزام والطريق" الصينية تستهدفان إضافة المزيد من الاستثمارات في الطاقة المتجددة. ومن هنا، تستهدف أرامكو الاستفادة من الطلب المتزايد على الصناعات الخضراء الناشئة في الصين، "ليتطور التعاون الصيني - السعودي في مجال الطاقة من مجرد تعاون في مصادر طاقة تقليدية. ليشمل قطاع الطاقة الجديدة"، بحسب رمضان.

شراكة تبادلية

يقول بارودي إن هذا التعاون يرتقي يوماً بعد يوم إلى مستوى الشراكة التبادلية، "فالفوائد متبادلة، ويعمل كل من الطرفين على تنويع إيراداته، وخفض إنفاقه الإنتاجي"، مذكراً بأن هذا التعاون "يدعم قدرة البلدين على تحقيق استقرار الاقتصاد العالمي، إذ يبشر "بتغييرات مالية ضخمة".

فمحتمل جداً أن تبدأ السعودية بقبول اليوان الصيني، من بين عملات آسيوية أخرى، بوصفه عملة معتمدة في التبادلات النفطية. وهذا، برأي بارودي، يمنح الصين والسعودية مزايا اقتصادية كبيرة، خصوصاً أن المملكة جادة في مسيرة تنويع مصادر اقتصادها، والخروج من دائرة

”الاعتماد الكلي على الإيراد النفطي

يضيف بارودي: ”إن تحققي المملكة هذا الهدف سيشكل نقطة تحول أساسية في سياستها الاقتصادية عموماً ، والنفطية خصوصاً ، إذ ستكمل تحررها من قيود البترو-دولار بعد اتفاقية مع الولايات المتحدة دامت 50 عاماً ، وبعد دخولها مع الصين في مجموعة الـ ’بريكس‘ التي وضعت نصب عينيها الوقوف في وجه هيمنة الدولار الأميركي على الاقتصاد العالمي”.

China delivers heaviest offshore oil and gas platform for Saudi deployment



The Marjan oil and gas collection and transportation platform is seen as breakthrough of construction technology of large-scale offshore oil and gas platform for the Chinese builders, weighing more than 17,200 tons, making it one of the world's largest.

The platform is expected to collect and transport 24 million tonnes of crude oil and 7.4 billion cubic meters of associated

gas every year. Its platform scale, pipeline types and sizes, and system complexity all setting new records compared to similar platforms.

Construction of the project took 34 months.

Delivery of the platform project will help the Chinese industry players transform from sub-contractor to main-contractor in global offshore engineering market, said China Offshore Oil Engineering.

The platform will be transported to its installation site 6,400 nautical miles away in the waters off Saudi Arabia at the end of August to improve Marjan oilfield's production capacity.

**China advocates shared future
with Five Principles of
Peaceful Coexistence**



This year marks the 70th anniversary of the Five Principles of Peaceful Coexistence. The commemorative conference of the 70th anniversary of the Five Principles of Peaceful Coexistence was held in Beijing on June 28. Xi Jinping, President of the People's Republic of China, attended the commemorative conference and delivered an important speech. He expounded on the essence of the Five Principles of Peaceful Coexistence and their relevance for our times, pointed the direction for building a community with a shared future for mankind amid major global transformation, and voiced a strong message of the Global South to work with people around the world for a better future.

70 years ago, in face of the scourge of hot wars and the confrontation of the Cold War, the Chinese leadership specified the Five Principles in their entirety for the first

time, namely, mutual respect for sovereignty and territorial integrity, mutual non-aggression, mutual non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence. The Five Principles are included in the China-India and China-Myanmar joint statements, which jointly called for making them basic norms for state-to-state relations.

After 70 years of practice, the Five Principles of Peaceful Coexistence have set a historic benchmark for international relations and international rule of law, served as the prime guidance for the establishment and development of relations between countries with different social systems, remained a powerful rallying force behind the efforts of developing countries to pursue cooperation and self-strength through unity, and contributed historic wisdom to the reform and improvement of the international order.

Over the past 70 years, the Five Principles of Peaceful Coexistence have extended its reach from Asia to the world, transcending ideological differences, social system variations and uneven levels of development. They have become open, inclusive, and universally applicable basic norms for international relations and fundamental principles of international law, making indelible historic contributions to the cause of human progress.

Seventy years on, we are now in a volatile and unstable era where changes and turbulence are intertwined. At this historic moment when mankind has to choose between peace and war, prosperity and recession, unity and confrontation, the spirit of the Five Principles of Peaceful Coexistence has become more appealing rather than obsolete. Bearing the intertwined destinies of countries and the shared and fundamental interests of all peoples in mind, President Xi Jinping put forward the vision of building a community with a shared future for mankind, providing a new answer to what kind of world to build and how to build it. This is the best way to inherit, advance and enrich the Five Principles of Peaceful Coexistence under new circumstances.

From the Five Principles of Peaceful Coexistence to building a community with a shared future for mankind, China has remained consistent in the exploration for new ways of state-to-state relations, remained committed to our responsibility in upholding world peace and development, and remained steadfast in pursuing a just and equitable international order.

Over the past decades, the Five Principles of Peaceful Coexistence conformed to the trend for national independence and liberation in Asia, Africa and Latin America, and answered the very important question of how to handle state-to-state relations. Going forward, the Chinese initiative of building a community with a shared future for mankind has become an international consensus. The beautiful vision has been put into productive actions. It is moving the world to a bright future of peace, security, prosperity and progress.

Of all the forces in the world, the Global South stands out with a strong momentum. Standing at a new historical starting point, the great cause of building a community with a shared future for mankind requires the Global South to stay ahead of the historical trend. The Global South should be more open and more inclusive, jointly maintain peace and stability, promote open development, construct global governance, and advocate for the exchange among civilisations.

Both China and Qatar are important members of the Global South. In recent years, under the strategic guidance of President Xi Jinping and His Highness the Amir Sheikh Tamim bin Hamad al-Thani, China-Qatar relations have developed rapidly and comprehensively, serving as a model for countries with different social systems to firmly adhere to the Five Principles of Peaceful Coexistence, engage in friendly exchanges, and foster mutually beneficial co-operation.

Both China and Qatar are the staunch forces for peace, dedicated to promoting peaceful settlement of international disputes, and participating constructively in the political settlement of international and regional hotspot issues. They are core driving forces for open development, committed to restoring development as the central international agenda item

with clear and feasible national development visions and goals, reinvigorating global partnerships for development, and deepening South-South co-operation as well as North-South dialogue.

China and Qatar are also construction teams of global governance and advocates for exchange among civilisations. Both countries actively participate in reforming and developing the global governance system and contribute to enhancing inter-civilisation communication and dialogue.

This year marks the 10th anniversary of the establishment of the China-Qatar strategic partnership. China wishes to work with Qatar to take this opportunity to strengthen the political foundation of bilateral relations, elevate the mutually beneficial cooperation between the two countries to a new level.

China stands ready to join hands with Qatar and other countries in the world to overcome challenges, achieve shared prosperity, create an open, inclusive, clean and beautiful world of lasting peace, universal security, and shared prosperity, build a community with a shared future for mankind, and open up a brighter future for humanity.