

Ενα Νέο Βιβλίο Δείχνει τον Δρόμο για την Ειρηνική Επίλυση των Διαφορών Αναφορικά με τα Θαλάσσια Σύνορα



Ενας Οδικός Χάρτης Μπορεί να Βοηθήσει τα Παράκτια Κράτη να Επωφεληθούν του Υποθαλάσσιου Πλούτου

ΟΥΑΣΙΓΚΤΟΝ: Ο ειδικός σε θέματα ενέργειας, Ρούντι Μπαρούντι, στο νέο του βιβλίο αναδεικνύει μηχανισμούς μείωσης της έντασης, οι οποίοι συχνά ξεχνιούνται αλλά μπορούν να βοηθήσουν στην εκμετάλλευση πετρελαίου και φυσικού αερίου αξίας δισεκατομμυρίων δολλαρίων.

Το βιβλίο *Διαφωνίες επί των θαλασσίων Συνόρων στην Ανατολική Μεσόγειο: Μια Πρόταση Επίλυσης* διανέμεται από το Ινστιτούτο Μπούκινγκς και σκιαγραφεί το εκτενές νομικό και διπλωματικό πλαίσιο το οποίο διατίθεται για χώρες με διαφιλονεικούμενα θαλάσσια σύνορα. Ο συγγραφέας Ρούντι Μπαρούντι συζητά την αυξάνουσα επιρροή του Διεθνούς Δικαίου της Θαλάσσης υπό την αιγίδα των Ηνωμένων Εθνών (United Nations Convention on the Law of the Sea – UNCLOS), οι κανόνες του οποίου αποτελούν πια

την βάση για την επίλυση όλων, σχεδόν, των διαπραγματεύσεων και συμφωνιών στην θάλασσα. Εξηγεί, επίσης, πως οι πρόσφατες εξελίξεις στον επιστημονικό και τεχνολογικό τομέα – και ειδικά στην χαρτογράφηση ακριβείας – έχουν αυξήσει περαιτέρω την επιρροή των κανόνων του Διεθνούς Δικαίου της Θάλασσας, αφαιρώντας κάθε ενδεχόμενη ασάφεια από οποιαδήποτε διαπραγμάτευση που βασίζεται στους κανόνες του Δικαίου.

Το βιβλίο εστιάζει στην ανατολική Μεσόγειο, όπου οι πρόσφατες ανακαλύψεις υδρογονανθράκων ανέδειξαν το γεγονός ότι τα περισσότερα θαλάσσια σύνορα της περιοχής παραμένουν ακαθόριστα. Η αβεβαιότητα την οποία δημιουργεί αυτή η κατάσταση όχι μόνο καθυστερεί την εκμετάλλευση των πόρων και την διοχέτευση του πλούτου προς όφελος των κοινωνιών, αλλά δημιουργεί και κινδύνους θερμών επεισοδίων και πολέμων. Τέτοιου είδους προβλήματα υπάρχουν σε όλη την Γή. Ο Μπαρούντι σημειώνει, ωστόσο, ότι η δίκαιη επίλυσή τους σε μία περιοχή μπορεί να ενδυναμώσει την εμπιστοσύνη στους πολύπλευρους μηχανισμούς σε κάθε περιοχή.

Σε περίπτωση, σημειώνει, που οι χώρες της ανατολικής Μεσογείου συμφωνούσαν σε μια δίκαιη επίλυση των διαφορών τους με βάση το Διεθνές Δίκαιο, «θα ήταν μια έμπρακτη απόδειξη ότι η μεταπολεμική αρχιτεκτονική συλλογικής ασφάλειας παραμένει όχι μόνο εφικτή αλλά και απαραίτητη... θα απεδείκνυε σε όλον τον κόσμο ότι κανένα εμπόδιο δεν είναι τόσο μεγάλο και καμμία ιστορική εχθρότητα τόσο βαθιά ριζωμένη ώστε να μην υπερσκελίζεται από τον βασικό κανόνα στον οποίο συναίνεσαν όλα τα μέλη των Ηνωμένων Εθνών με την συμμετοχή τους σε αυτόν – την ευθύνη να επιλύουν τις διαφορές τους χωρίς την χρήση ή την απειλή βίας.»

Το βιβλίο μας υπενθυμίζει πως υπάρχουν μοχλοί οι οποίοι μπορούν να αμβλύνουν τις διπλωματικές ανισότητες, και αυτό είναι ιδιαίτερα χρήσιμο σε μια εποχή όπου η όλη ιδέα της πολυπλευρικής προσέγγισης βάλλεται από τις ίδιες χώρες οι οποίες την δημιούργησαν. Ο τρόπος γραφής του βιβλίου ζωντανεύει ένα θεματικό πλέγμα ιστορίας, γεωγραφίας, δικαίου

και χαρτογραφίας, καθιστώντας τα θέματα αυτά προσιτά στο ευρύ κοινό στο οποίο απευθύνεται, καθώς και σε πολιτικούς και διπλωμάτες.

Ο Μπαρούντι εργάζεται εδώ και τέσσερις δεκαετίες στον ενεργειακό τομέα. Ανάμεσα στις πολυεθνικές εταιρείες, κυβερνήσεις και διεθνείς θεσμούς που έχει συμβουλέψει στο διάστημα αυτό συγκαταλέγονται τα Ηνωμένα Έθνη, η Ευρωπαϊκή Επιτροπή, το Διεθνές Νομισματικό Ταμείο και η Παγκόσμια Τράπεζα. Οι εξειδικευμένες γνώσεις του βρίσκονται στους τομείς του πετρελαίου και φυσικού αερίου, τα πετροχημικά, τον ηλεκτρισμό, την ενεργειακή ασφάλεια και την μεταρρύθμιση του ενεργειακού τομέα για να αντιμετωπίσει περιβαλλοντικά ζητήματα, την αγορά του άνθρακα, τις ιδιωτικοποιήσεις, και τις υποδομές. Είναι Διευθύνων Σύμβουλος της ανεξάρτητης συμβουλευτικής εταιρείας Qatar Energy and Environment Holding, με έδρα την Ντόχα του Κατάρ.

Το βιβλίο αυτό είναι απόσταγμα πολυετούς προσωπικής έρευνας, ανάλυσης και υπεράσπισης θέσεων του Μπαρούντι. Την επιμέλεια του κειμένου ανέλαβε η Debra L. Cagan, (Distinguished Energy Fellow, Transatlantic Leadership Network) και ο Sasha Toperich (Senior Executive Vice President, Transatlantic Leadership Network).

Το βιβλίο *Διαφωνίες επί των θαλασσιών Συνόρων στην Ανατολική Μεσόγειο: Μια Πρόταση Επίλυσης* εκδίδεται από το Transatlantic Leadership Network (TLN), μια ένωση δικηγόρων, παικτών του ιδιωτικού τομέα και αναλυτών οι οποίοι στοχεύουν στον διαρκή εκσυγχρονισμό των σχέσεων Ηνωμένων Πολιτειών και Ευρωπαϊκής Ένωσης. Η αρχική μορφή του βιβλίου ήταν ηλεκτρονική. Τώρα διανέμεται από τις Εκδόσεις του Ινστιτιούτου Μπρούκινγκς, που ιδρύθηκαν το 1916 για την έκδοση ερευνών του Ινστιτούτου, το οποίο θεωρείται από πολλούς ως το πιο αξιосέβαστο ινστιτιούτο έρευνας των ΗΠΑ.

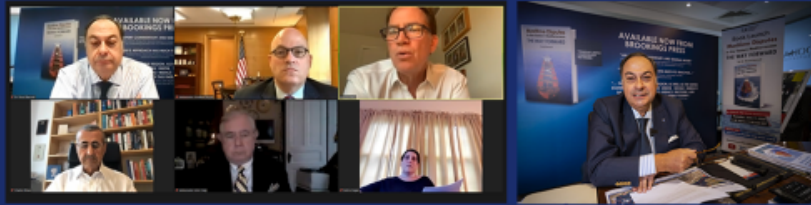
Πολλοί εξειδικευμένοι παρατηρητές πλέκουν το εγκώμιο του βιβλίου. Παραθέτουμε λίγα αποσπάσματα:

Douglas Hengel, Professional Lecturer in Energy, Resources and Environment Program, Johns Hopkins University School of Advanced International Studies, Senior Fellow at German Marshall Fund of the United States, and former State Department official: “Μέσα από αυτό το στοχαστικό και γλαφυρό βιβλίο, ο Ρούντι Μπαρούντι μας δίνει ένα πλαίσιο... το οποίο μας δείχνει τον δρόμο προς μια δίκαιη και ειρηνική λύση... οι χώρες της περιοχής, καθώς και η Ευρωπαϊκή Ένωση και οι Ηνωμένες Πολιτείες, θα έπρεπε να ασπαστούν την προσέγγιση του Μπαρούντι.

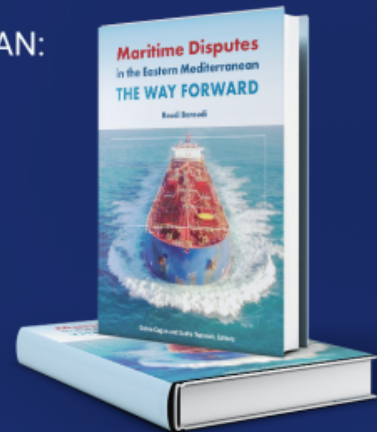
Andrew Novo, Associate Professor of Strategic Studies, National Defense University: “... Ένα καλά ισορροπημένο, καινοτόμο και θετικό μήνυμα το οποίο μπορεί να βοηθήσει πολλά θέματα να προοδεύσουν που δεν φαίνονται να επιδέχονται επίλυση. Χρησιμοποιώντας το Διεθνές Δίκαιο, γεω-στοιχεία υψηλής ακρίβειας και μια ισχυρή οικονομική λογική, ο Μπαρούντι προσφέρει ένα πειστικό επιχειρήμα υπέρ ενός συμβιβασμού, εφόσον, φυσικά, οι εμπλεκόμενες πλευρές θέλουν να ακούσουν.”

New Book Shows Way to Peaceful Resolution of Maritime Border Disputes

THE TRANSATLANTIC LEADERSHIP NETWORK IS PLEASED
TO ANNOUNCE THE PUBLICATION OF
MARITIME DISPUTES IN THE EASTERN MEDITERRANEAN:
THE WAY FORWARD,
BY ROUDI BAROUDI



TLN | TRANSATLANTIC
LEADERSHIP
NETWORK
Through BROOKINGS PRESS



Road Map Can Help Coastal Countries Tap Offshore Resources

WASHINGTON, D.C.: A new book by energy expert Roudi Baroudi highlights often overlooked mechanisms that could defuse tensions and help unlock billions of dollars' worth of oil and gas.

“Maritime Disputes in the Eastern Mediterranean: the Way Forward” – distributed by Brookings Institution Press – outlines the extensive legal and diplomatic framework available to countries looking to resolve contested borders at sea. In it, Baroudi reviews the emergence and (growing) influence of the United Nations Convention on the Law of the Sea (UNCLOS), whose rules and standards have become the basis for virtually all maritime negotiations and agreements. He also explains how recent advances in science and technology, in particular precision mapping, have expanded the impact of UNCLOS guidelines by taking the guesswork out of any dispute-resolution process based on them.

As the title suggests, much of the study centers on the Eastern Mediterranean, where recent oil and gas discoveries have underlined the fact that most of the region's maritime boundaries remain unresolved. The resulting uncertainty not only slows development of the resources in question (and reinvestment of the proceeds to address poverty and other societal challenges), but also increases the risk of one or

more shooting wars. Baroudi notes, however, that just as such problems and their consequences exist around the globe, so might their fair and equitable resolution in one region work to restore faith in multilateralism for peoples and their leaders in all regions.

Were the countries of the Eastern Mediterranean to agree under UNCLOS rules to settle their differences fairly and equitably, he writes, "it would give a chance to demonstrate that the post-World War II architecture of collective security remains not merely a viable approach but also a vital one ... It would show the entire world that no obstacles are so great, no enmity so ingrained, and no memories so bitter that they cannot be overcome by following the basic rules to which all UN member states have subscribed by joining it: the responsibility to settle disputes without violence or the threat thereof."

Baroudi's work offers both general and specific reminders that levers exist which can level the diplomatic playing field, a useful contribution at a time when the entire concept of multilateralism is under assault from some of the very capitals that once championed its creation. In addition, it is written in an engaging style that makes several disciplines – from history and geography to law and cartography – accessible and interesting to everyone from academics and policymakers to engineers and the general public.

Baroudi's background consists of more than four decades in the energy sector, during which time he has helped design policy for companies, governments, and multilateral institutions, including the United Nations, the European Commission, the International Monetary Fund, and the World Bank. His areas of expertise range from oil and gas, petrochemicals, power, energy security, and energy-sector reform to environmental impacts and protections, carbon trading, privatization, and infrastructure. He currently serves as CEO of Energy and Environment Holding, an independent consultancy based in Doha,

Qatar.

The book has been distilled from years of Baroudi's personal research, analysis, and advocacy, with editing by Debra L. Cagan (Distinguished Energy Fellow, Transatlantic Leadership Network) and Sasha Toperich (Senior Executive Vice President, Transatlantic Leadership Network).

"Maritime Disputes in the Eastern Mediterranean: the Way Forward" is published by the Transatlantic Leadership Network (TLN), an international association of practitioners, private sector leaders, and policy analysts working to ensure that US-EU relations keep pace with a rapidly globalizing world. Distribution has been entrusted to Brookings Institution Press, founded in 1916 as an outlet for research by scholars associated with the Brookings Institution, widely regarded as the most respected think-tank in the United States.

The TLN hosted a webinar on Thursday to launch the e-book version, with guests and participants joining via Zoom from cities around the world. Following introductory remarks by Cagan and former US Ambassador John B. Craig, a lively discussion took place with a panel featuring Baroudi and two very relevant representatives from the US State Department – Jonathan Moore (Principal Deputy Assistant Secretary, Bureau of Oceans and International Environmental and Scientific Affairs), Kurt Donnelly (Deputy Assistant Secretary for Energy Diplomacy, Bureau of Energy Resources) and Dr. Charles Ellinas (Senior Fellow with the Atlantic Council's Global Energy Center)

Prior to the launch event, the book had garnered advance praise from key observers, including:

Douglas Hengel, Professional Lecturer in Energy, Resources and Environment Program, Johns Hopkins University School of Advanced International Studies, Senior Fellow at German Marshall Fund of the United States, and former State

Department official: “In this thoughtful and well-argued book, Roudi Baroudi provides a framework ... guiding us down a path to an equitable and peaceful resolution ... The countries of the region, as well as the United States and the European Union, should embrace Baroudi’s approach ...”

Andrew Novo, Associate Professor of Strategic Studies, National Defense University: “... A balanced, innovative and positive message that can provide progress for a series of apparently insoluble problems. Using international law, highly detailed geo-data, and compelling economic logic, Baroudi makes a powerful case for compromise ... if only the opposing sides will listen.”

Betting against Qatar’s Energy Sector Ignores a lot of history



By Roudi Baroudi

Some of the latest punditry has it that Qatar’s economy is

teetering on the brink of disaster because of the COVID-19 crisis, which has been steadily eroding demand for the country's most important export, natural gas. Obviously the situation is less than ideal, but much of the doom and gloom stems from a failure to appreciate just how well prepared the country is for all manner of obstacles.

Journalists and other observers have watched the market for crude oil collapse to the point where prices for some futures contracts recently went into negative territory – i.e. producers in some parts of North America actually had to pay customers to take oil off their hands. This, in turn, is causing a slew of US and Canadian oil companies, especially smaller ones, to stop extracting crude, and many are going bankrupt. Similar pressures will arise for gas producers, these folks argue, and since Qatar is the world's leading producer and exporter of liquefied natural gas (LNG), it will face the biggest problems.

To be sure, the global crisis caused by COVID-19 has subjected the entire world to some freakish pressures, including unprecedented drop-offs in demand for certain goods and services, among them several energy products previously soaked up by (now idled) planes, trains, and automobiles (not to mention cruise ships, factories, hotels, etc.). Thus far the consequences for LNG have been less dramatic than those for crude oil, but nor can they be ignored, especially for developing countries whose economies and financial stability are heavily dependent on constant flows of gas revenues from exports.

For multiple reasons, however, Qatar has to be considered far more resilient than other major LNG producers. For one thing, it has much deeper pockets that give it considerable wherewithal to withstand even a prolonged period of lower gas revenues. For another, Qatar's energy interests go far beyond the extraction of its gas resources for export. It is now fully engaged at several points along the hydrocarbon value

chain, and this in multiple countries, all of which provide diversification of revenues and therefore dilution of negative impacts. Perhaps most importantly, for almost three years now, the country has been fortifying itself against the effects of an illegal economic and transport blockade led by Saudi Arabia and followed by several other Gulf Cooperation Council (GCC) member states, plus Egypt and others. To say the least, Qatar has proved a tough nut to crack: in fact, the experience has made the whole country much more efficient, far more self-sufficient, and even more self-confident than ever before.

One of the drivers of this success has been government-owned Qatar Petroleum (QP), one of the strongest and most influential companies on the planet, and it has not got to this position by simply opening a spigot in the sand and then spending the proceeds. Instead, QP reached its current lofty status by, first, making its bet on LNG at precisely the right time in history, just as the environmental concerns associated with oil made natural gas a more palatable choice and the world's energy mix started transitioning to a higher proportion of renewables and other alternative technologies. Second, Qatar then used its role as the world's most important LNG exporter to become a force for stability in a burgeoning global gas market, maintaining safe and reliable supplies that have allowed customers around the world to grow their economies.

Second, QP has not remained a one-trick pony. Instead, it and its subsidiaries have diversified with gusto – and not just in the usual sense of producing petrochemicals, aluminum, and fertilizers on their home turf. Rather, the company has reached far beyond Qatar, the GCC countries, and even the broader Middle East and North Africa region to make acquisitions around the globe. Acting alone or in concert with major partners like Britain's Shell, France's Total, Italy's ENI, and the USA's Chevron and ExxonMobil, the past couple of years have seen QP take up or renew stakes in exploration,

production, and/or processing assets in at least a dozen countries, including Argentina, Brazil, Cyprus, Congo Brazzaville, Guyana, Ivory Coast, Kenya, Mexico, Morocco, Mozambique, Namibia, Oman, South Africa, and even the United Arab Emirates.

Perhaps the biggest play of the past few years has been in the United States, where QP's activities have included partnering with ExxonMobil (Qatar's single largest foreign investor) for a \$10 billion project to build a two-train LNG export facility adjacent to the existing Golden Pass import terminal in Texas. QP also added to its footprint in the USA by teaming with Chevron Phillips Chemical, a joint venture between Chevron and Phillips 66, to develop what could be the world's largest ethane cracker and derivatives units somewhere on the US Gulf Coast. QP will have a 49% stake in the \$8 billion complex, and Chevron Phillips Chemical has agreed to build virtual twin of it at Ras Laffan – hub of Qatar's gas industry.

Alongside its solid American investments, the company also continues to consolidate its access to existing markets in Europe and Asia, and to increase its capacity to supply those markets. It has recently signed long-term processing and/or storage contracts at terminal facilities serving key LNG markets, including Montoir-de-Bretagne, France (3 million tons per annum [MTA] until 2035), and Zeebrugge, Belgium (100% of regasification capacity until 2044). In addition, QP subsidiaries hold stakes in major terminals like the United Kingdom's South Hook (67.5%) and Italy's offshore Adriatic facility (23%). In April, it signed a \$3 billion contract to book a Chinese shipbuilder for the construction of new LNG carriers, some 100 of which it expects to need in the coming few years.

All the while, QP has continued to rack up agreements with both new and existing customers, including LNG sales to Kuwait and Vietnam; naphta deals with Japan's Marubeni Corporation,

Shell, Thailand Chemicals, and Vietnam; condensate feedstock sales to ExxonMobil in Singapore; and liquefied petroleum gas contracts with China's Oriental Energy and Wanhua Chemicals.

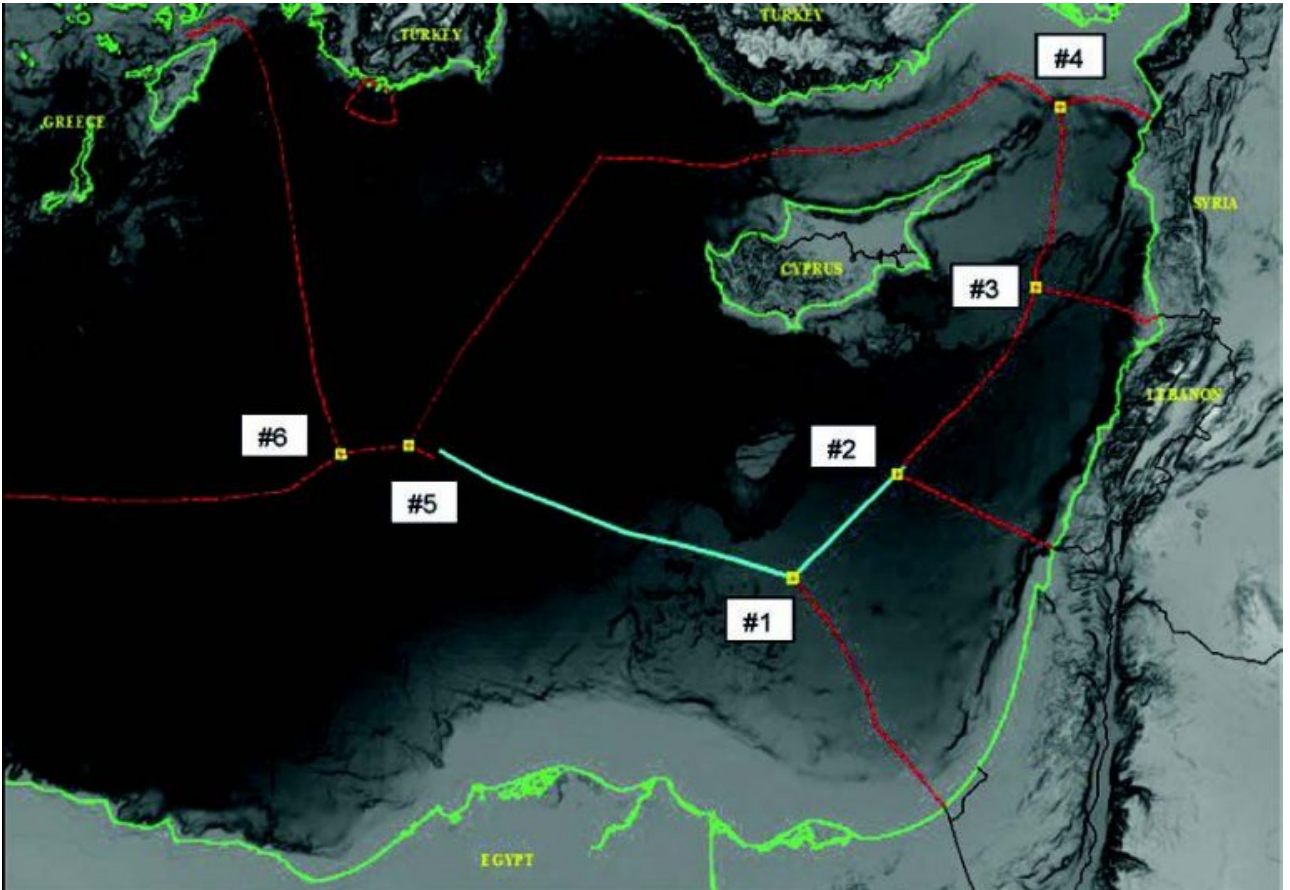
And all this is not to mention QP's massive undertaking to expand LNG output from 77 MTA to more than 110 MTA. When the COVID crisis hit, far from fretting the short- and medium-term obstacles, the company's response was to double down and take advantage of lower prices for construction materials by increasing capacity to a whopping 126 MTA by 2027.

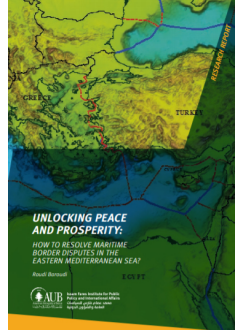
It should be recalled, too, that QP has managed all of these feats while its home country has been fending off the aforementioned Saudi-led siege. Qatar's public and private sectors alike have demonstrated world-class resilience since the blockade was imposed in 2017, so there is no reason to believe they will shrink before this new challenge. On the contrary, Qatar is – and will remain – a trusted source of stabilization in global markets.

Whatever the temporary inconveniences caused by the pandemic, both Qatar and QP remain bullish on the future – and with good reason. They did not get to where they are by accident, rather by well-timed investments and a commitment to ensuring stable markets for their customers. In fact, it could be fairly stated that Qatar and its flagship gas company created the modern global gas market, and they did so in such a way as to deliberately avoid much of the volatility associated with crude oil – for instance by eschewing the establishment of a cartel like OPEC. The current crisis could well require Qatar to make uncomfortable decisions, but its long-term trajectory – to keep expanding its role as a force for good in energy circles by providing win-win scenarios – is unlikely to be affected.

Roudi Baroudi is a four-decade veteran of the energy industry who currently serves as CEO of Energy and Environment Holding, an independent consultancy based in Doha.

بحث الجامعة الاميركية: منطقة شرق المتوسط قد تصبح المحور العالمي للطاقة شرط ان تقوم دولها الساحلية بترسيم حدودها البحرية وفقا لقواعد القانون الدولي





فتح ابواب السلام والازدهار: كيفية حل نزاعات الحدود البحرية في "شرق البحر الأبيض المتوسط" بحث علمي وعملي حققه رودي بارودي الخبير في صناعة الطاقة منذ أربعة عقود وقد نشر بالاشتراك مع معهد عصام فارس التابع للجامعة الأميركية في بيروت ، وهو يقدم للمهتمين تحليلا واضحا للأبعاد الحاضرة والاستنتاجات المباشرة.

بدأ بارودي بوصف احتياطات المنطقة المؤكدة والمحملة من النفط والغاز الموجودة في اعماق البحر، وتحديدًا كيف يمكن الاستغلال الآمن والفعال لهذه الموارد أن يحول الاقتصادات الوطنية وان يؤثر على العلاقات المضطربة في كثير من الأحيان بين الدول السبع (اليونان وتركيا وسوريا وقبرص ولبنان وفلسطين / إسرائيل ومصر). ثم يشرح كيف أدت الخلافات الحدودية العالقة إلى الحد من عمليات الاستكشاف والتطوير البحرية في معظم المنطقة - ويخلص في هذا الفصل الى شرح كيف يمكن أن تؤدي التوترات بين الدول إلى مزيد من عدم الاستقرار وحتى الى الحرب.

بعد ذلك يفصل التقرير آفاق حل النزاعات البحرية، ويوضح أنه على الرغم من طواهر الامور المعقدة، فإن أدوات الحل بسيطة ومتاحة بسهولة. الحل الوحيد بحسب بارودي أن تتبنى الحكومات المعنية وبشكل كلي، المبدأ الأساسي للأمم المتحدة والنظام الدولي برمته الذي تم العمل عليه منذ الحرب العالمية الثانية: أي الحل السلمي للنزاعات. وبمجرد اقرار هذا المبدأ ، فان أبحاثه تؤكد أن مزيجًا من القانون والعلوم والتكنولوجيا يجعل ترسيم الحدود البحرية عملية بسيطة وسهلة وتفيد جميع الأطراف.

باختصار، يؤكد التقرير بأنه على الرغم من أن بعض المراقبين والنقاد والسياسيين فقدوا صبرهم من نظام وقواعد الحلول الذي تقوم عليه الأمم المتحدة منذ عام 1945، إلا أننا في الواقع علينا اكتشاف المدى الكامل لفائدة هذا النظام - ليس فقط في منع الصراعات المسلحة ، ولكن حتى في إزالة بعض الأسباب الأكثر شيوعًا للنزاعات في المقام الأول. من الناحية النظرية على الأقل ، اهمية هذه

القواعد وهذا النظام يكمن بأن الدول الصغيرة لم تعد تحت رحمة الدول الكبيرة لأن الجميع لديهم نفس سبل الوصول إلى الوسائل القانونية لحل المشاكل العالقة فيما بينهم إضافة إلى الأدوات اللازمة لممارستها.

يوضح التقرير أيضًا كيف أن التقدم التكنولوجي يجعل من الممكن رسم المعالم الجغرافية - حتى في الأعماق البحرية - بدقة غير مسبوقة، مما يعني أن تحديد الحدود البحرية هو أمر سهل ويمكن القيام به في حال توفر الإرادة لدى الأفرقاء. وحتى إذا لم يكن بالإمكان الاتفاق على الحدود الفعلية لسبب ما (سياسية في الأجمال)، فإن الأدوات القانونية الحديثة لديها أيضًا آليات يمكن من خلالها للمدّعين المتنافسين مشاركة الإيرادات أو الابتعاد عن بعضهم البعض وحتى إنهاء نزاعاتهم حيا أو قانونيا. ويؤكد بارودي بأن المفقود لدى القيادات الوطنية هو الحس السليم والإرادة الطيبة للتوصل إلى مثل هذه الاستنتاجات.

ويردف أنه بمجرد أن يلجؤا إلى مثل هذا الاجراء، فإن الواقع الحالي - في الشرق المتوسط على الأقل - يمكن أن يعرف تغييرًا حقيقيًا في قواعد اللعبة الحالية. فالدول التي ستنتج الغاز ستخفض تكاليف الطاقة الوطنية الخاصة بها ما يولد عائدات كبيرة من الإنتاج و/ أو الصادرات، وحتى الدول غير المنتجة ستستفيد من استضافة مرافق المعالجة أو النقل. وفي أفضل السيناريوهات، قد تنضم البلدان الأكثر حظًا إلى خطة إقليمية لتقاسم العائدات. ستسمح هذه التحسينات المالية باستثمارات طال انتظارها في التعليم والرعاية الصحية والنقل والبيئة والمياه النظيفة والحد من الفقر. إضافة إلى استقرار سياسي، إذ سيكون لكل من الخصوم المعتادين (مثل إسرائيل ضد لبنان، وتركيا مقابل قبرص، واليونان مقابل تركيا، إلخ...) حافزًا مستمرًا للتقليل من الاحتكاكات التي قد تعطل ازدهار الاستفادة من الطاقة.

رودي أ بارودي، لبناني الجنسية، يشغل حاليًا منصب الرئيس التنفيذي لشركة الطاقة والبيئة القابضة، وهي شركة استشارية مستقلة مقرها في الدوحة، قطر. بعد أن قدم المشورة للشركات والحكومات والكيانات المتعددة الأطراف بشأن السياسة الفضلى في الطاقة، تركيزه الحالي يقوم على ضمان أن تبدأ صناعة الطاقة الناشئة في وطنه بداية صحية وصحيحة من خلال منع الفساد، وتجنب النزاعات الدولية، وتأمين مشاركة كبرى شركات النفط العالمية في عمليات الاستكشاف. نتيجة ظهوره المتكرر في وسائل الإعلام والمؤتمرات، أصبح أحد أبرز المؤيدين لـ "مكاسب السلام" التي ستؤمنها تنمية الطاقة الإقليمية لجميع دول شرق البحر الأبيض

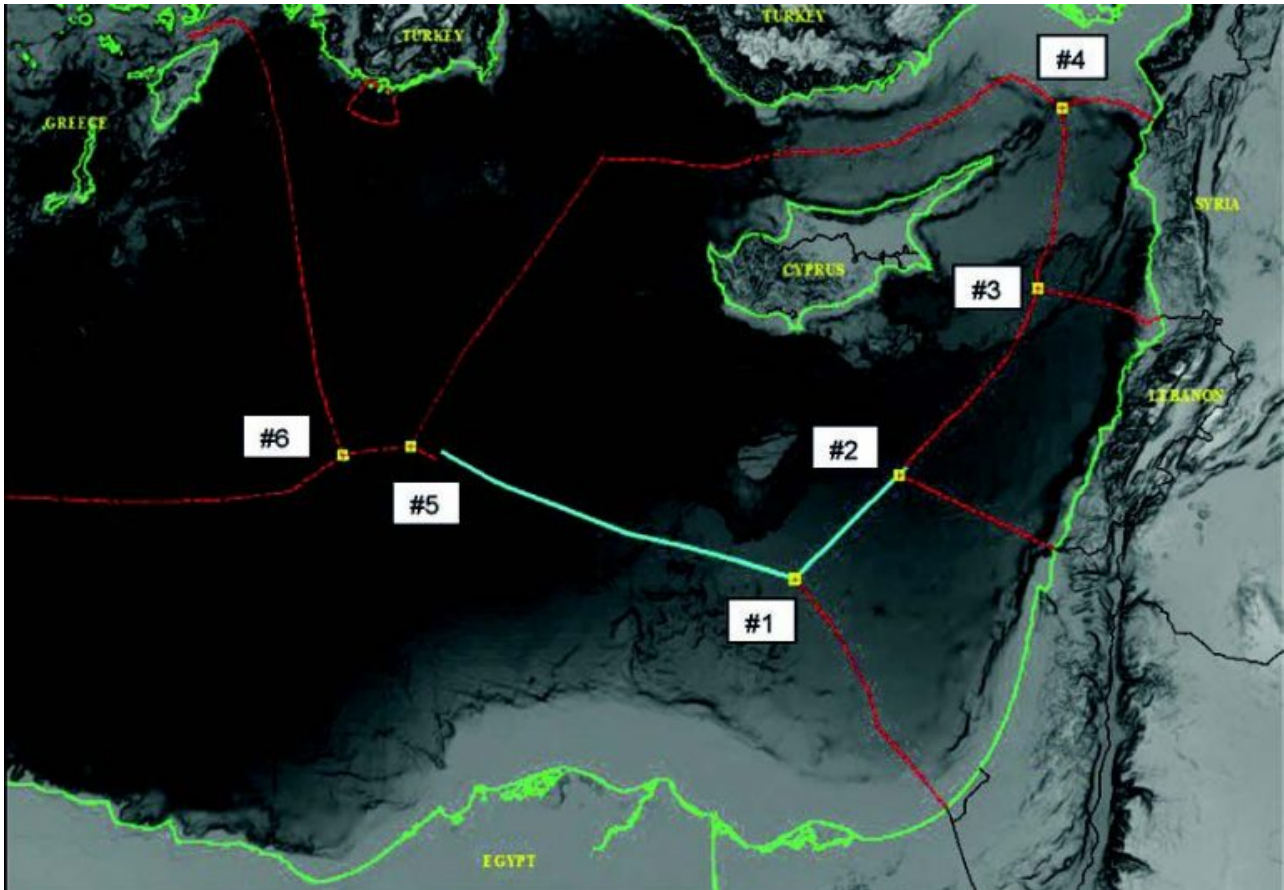
المتوسط.

تم تأسيس المعهد في عام 2006، وهو يشدد على البحث المستقل في السياسة العامة والشؤون الدولية، بالإضافة إلى "سد الفجوة بين الأوساط الأكاديمية وصناع السياسات"، خاصة فيما يتعلق بالعالم العربي. تتضمن أهدافه إحداث تأثير من خلال "إعلام عمليات صنع السياسات والتأثير على النقاش العام".



رودي بارودي

East-Mediterranean, Oil and Gas, Legal and Economic Aspects by Roudi Baroudi



BEIRUT: The Eastern Mediterranean could emerge as both a global energy hub and a powerful endorsement of international law if its coastal states get smart about settling their maritime boundaries, a new research report argues.

Written by four-decade energy-industry veteran Roudi Baroudi and published in conjunction with the American University of Beirut's Issam Fares Institute (IFI), "Unlocking Peace and Prosperity: How to Resolve Maritime Border Disputes in the Eastern Mediterranean Sea" offers both multi-dimensional analysis and straightforward conclusions.

Baroudi starts by describing the region's proved and potential reserves of undersea oil and (mostly) gas, specifically how the safe and effective exploitation of these resources could transform both national economies and the often troubled relationships among the country's seven states (Greece, Turkey, Syria, Cyprus, Lebanon, Palestine/Israel, and Egypt). He then explains how outstanding border disputes have severely curtailed offshore exploration and development in most of the region – and how the resulting tensions could lead to further instability and even war.

The report then details the prospects for resolving these disputes, demonstrating that despite much of what currently passes for conventional wisdom, the tools for the job are both relatively straightforward and readily available. The key, Baroudi, asserts, is that the governments in question need to embrace, once and for all, the bedrock principle of the United Nations and the entire international system built up since World War II: the peaceful resolution of disputes. Once that happens, his research indicates that a combination of law, science, and technology makes maritime boundary delineation a simple and even predictable process that benefits all parties.

In short, the report argues that although some critics have lost patience with the rules-based system fostered by the UN since 1945, we actually are on the cusp of discovering the full extent of that system's utility – not just in preventing armed conflict, but even in removing some of the most common reasons for disputes in the first place. Theoretically at least, this system means that small nations are no longer at the mercy of larger ones because all have access to the same legal remedies and the tools to exercise these.

In the case of maritime boundaries, the primary implement is the United Nations Convention on the Law of the Sea (UNCLOS), which lays down the legal standards and scientific measurements by which offshore boundaries are to be drawn. The vast majority of the world's countries are signatories to

UNCLOS, and even those that are not remain subject to at least some of its tenets, and/or to the jurisdiction of institutions like the International Court of Justice (ICJ). Over the past couple of decades, the ICJ and other courts, as well as various treaties, negotiations, and arbitration findings, have established a large body of precedents that take the guesswork out of border delineation, giving more countries greater incentive to subject their legitimate claims to qualified scrutiny.

As if all this were not enough, the report also outlines how technological advances now make it possible for geographical features – even deep beneath the waves – to be mapped with unprecedented accuracy, meaning that setting maritime borders is virtual child's play. And even if the actual border can't be agreed for some reason (probably an arcane political one), the modern legal toolbox also includes mechanisms by which rival claimants can share revenues or at least stay out of each other's way until such time as they can end their disputes. All that's missing, Baroudi says, are the good sense and the good will for national leaderships to reach such conclusions an act accordingly.

Once they do, he contends, the results – in the Eastern Med, at least – could be genuinely game-changing. Each of the new gas producers would lower their national energy costs and generate significant revenues from production and/or exports, and even non-producing nations stand to benefit by hosting processing or transport facilities. In a best-case scenario, the luckiest countries might accede to a regional revenue-sharing plan. These financial improvements would allow long-overdue investments in education, healthcare, transport, and poverty reduction. All the while, with their respective economic interests more closely aligned and therefore similarly dependent on regional stability, each of the usual antagonists (e.g. Israel vs. Lebanon, Turkey vs. Cyprus, Greece vs. Turkey, etc.) would have an ongoing incentive to

minimize frictions that might derail the energy boom.

A Lebanese national, Baroudi currently serves as CEO of Energy and Environment Holding, an independent consultancy based in Doha, Qatar. Having made a career out of advising companies, governments, and multilateral entities on a energy policy, his recent focus has been on ensuring that his homeland's nascent energy industry gets off to a healthy start by preventing local corruption, avoiding international disputes, and securing the participation of major international oil companies. As a result of his frequent media and conference appearances, he has become one of the most prominent proponents for the "peace dividends" that regional energy development would pay to all East Mediterranean countries.

Established in 2006, the IFI emphasizes independent research into public policy and international affairs, as well as "bridging the gap between academia and policymaking", particularly as these regard the Arab world. Its self-set objectives include making an impact by "informing policymaking processes and influencing the public debate".



Roudi Baroudi

US Must Lead Response To Perils Of COVID-19 And Oil Crisis



G20 should hold an emergency meeting to prepare a realistic agenda to tackle the economic crisis created by COVID-19

Roudi Baroudi – Doha

It took a global pandemic that has grounded airlines, idled factories, and kept billions of people indoors, but prices for some oil futures contracts have gone into negative territory for the first time ever.

Not since Colonel Drake struck oil – with commercially viable methods – in Pennsylvania in 1859 has a producer had to pay

customers to take crude off their hands. Together, oil & gas still supply approximately 60 percent of the world's energy, and that is not to mention its myriad other uses in modern industry. So, what to do when a demand slump of unprecedented size & speed has brought so low the world's most ubiquitous commodity, one still required by so many people?

First, it is crucial to recall how we got here, specifically the fact that the COVID-19 crisis was not the only factor. Keep in mind that for weeks, the gathering collapse of demand coincided with a massive flow of oversupply as Russia and the Kingdom of Saudi Arabia refused to agree on production cuts, choosing instead to battle for market share going forward. Eventually, they will reach a new entente, but the effect of the virus had so destabilised the markets that even zero was no longer a floor in the minds of the investors.

Until COVID-19 shut down whole sectors the global economy, the world had been consuming approximately 100 million barrels of oil a day. By mid-April, that figure had dropped to something in the order of 80 million. The imbalance quickly filled up tank farms, and some analysts believe that as much as 160 million barrels of oil are currently being stored in tankers at sea but with nowhere to go. Airlines have slashed their schedules by 90 percent or more. Inevitably, oil-producing companies have had to shut down their wells, and dozens of refineries have had to suspend operations since they could no longer dispose of oil and related products.

There is no question that the heaviest damage has been sustained in the United States. The shale oil business had been so successful that the country had become the world's largest crude producer, managing not only to satisfy 90 percent of its own demand from domestic sources but also to compete with Russia and Saudi Arabia for customers overseas. The industry was always vulnerable, however, because of higher production costs, its producers were the first to fail.

Oil is unlike any other commodity in that a safe, affordable, and continuous supply of it is perhaps the single-most far-reaching factor of modern life for businesses, organisations, and almost 200 countries around the globe. Of course, renewables and other alternative sources have made great strides in recent years, and one or more of these technologies will be the future, but for now, and hydrocarbons and oil are still the prime determinants of success or failure.

At the same time, the fact that this is having such a concentrated effect in the United States is a crisis because that country is a reliable bellwether for global economic health. Even as China's meteoric rise over the past decades has made it the world's second largest economy, with nominal GDP about \$14 trillion for 2019, the US economy remains far away the world's heftiest at about \$21 trillion. For this reason, when Americans stop buying, everywhere loses sales. And in just a few short weeks, more than 26 million of them have filed for unemployment benefits. Jobs are being shed in record numbers, meaning less capacity for anyone else to compensate for the evaporation of US demand for everything.

So how do we keep the of global epidemic and global oil glut from producing long-term damage that yields to even more human and economic losses? How do we get the world's most important economic engines – to get global commerce moving again? In a word, unity – of the sort that brings all humankind together for collective action. Even assuming that a vaccine is developed, the damage done to some of the world's most important economies will not be repaired overnight.

In short, recovery depends on sincere dialogue, full cooperation, and genuine transparency. We are all in this together now, so the best way out is to collaborate on an exit strategy that saves time, money, and human lives. The biggest responsibility falls on the biggest players, the US, China, and Russia, along with the European Union, Japan, and multilateral institutions. Going forward, each of these

countries and entities will need to make commitments about what it will and will not do. Only then can the necessary confidence and stability be rebuilt around the world.

Exceptional challenges call for exceptional remedies. Already we have seen several global leaders pledge to work together on a vaccine, but the United States was notable by its absence. For the broader purpose of steering a way out of the global economic morass, it is essential that Washington be present and accounted for. My suggestion is an emergency meeting of the G20 at the earliest, which probably means the first part of May. Not a moment should be wasted in preparing a realistic agenda that measures up to the enormity of the tasks at hand. To quote the quintessential American, Benjamin Franklin, "We must, indeed, all hang together, or most assuredly we shall all hang separately."

Roudi Baroudi is CEO of Energy
and Environment Holding,
an independent consultancy
based in Qatar

Total E&P Liban



Total has signed two **Exploration and Production Agreements (EPAs)** for Blocks 4 and 9, with the Lebanese Republic.

The EPAs were awarded as part of the 1st offshore licensing round, launched by the Lebanese government in 2017, to the **consortium led by Total acting as operator** (40%) and composed of ENI (40%) and Novatek (20%) as partners.

Both Blocks are located in water depths ranging from 1,400 to 1,800 meters knowing that Block 4 is central while Block 9 is in the southern part of the country.

As per an international tender, *Tungsten Explorer drillship*, owned by the company *Vantage Drilling*, was contracted to start the drilling activity in Block 4. The drillship reached Lebanese waters on 25 February 2020. Drilling of the first exploration well on Block 4 in the Exclusive Economic Zone of Lebanon was completed on 26 April, 2020. Traces of gas were observed confirming the presence of a hydrocarbon system, but no reservoirs were encountered. Based on the data acquired during drilling, studies will be conducted to understand the results and further evaluate the exploration potential of the Total operated consortium blocks and the Lebanese offshore.

EXPLORATION DRILLING IN BLOCK 4

The drilling aimed at evaluating the possible presence of hydrocarbons and was carried by a dynamically positioned drillship, unanchored to the sea bottom. It was completed to a depth of 4,076 meters and through approximately 1,500 meters of water depth. The drilling activity took place 30 km North of Beirut.



STEPS OF OFFSHORE EXPLORATION DRILLING

An exploration well does not allow the production of hydrocarbons however, it verifies their presence and allows the collection of many essential information such as: pressure, temperature, permeability, composition of the geological layers and nature of the fluid within the rocks. The collected data during this stage will validate or not the presence of hydrocarbons. For more info, watch the video.

Oil prices have slumped to their lowest for two decades as doubts grew about Donald Trump's hopes of ending the US lockdown and investors braced for a week of potentially damaging figures about the impact of the coronavirus on the world economy.



The price of US crude oil plunged almost 20%, to below \$15, in early trading on Monday – its lowest point since 1999 – as stockpiles continued to build owing to a crash in demand caused by the Covid-19 pandemic.

Concerns have been heightened by the growing standoff between the US president and state governors over whether the US can begin to lift restrictions on movement and businesses.

It came as the heads of all the UN's major agencies issued a graphic warning of the risk of coronavirus to the world's most vulnerable countries after disclosing that international donors had pledged only around a quarter of the \$2bn the UN requested for its emergency Covid-19 response in March.

At a daily media briefing that grew increasingly tetchy, Trump said on Sunday night that 4.18 million Americans had been tested for the coronavirus and that the widespread operation was paving the way for parts of the country to reopen for business. "That's a record anywhere in the world," he claimed.

But governors accused the president of being "delusional" and said they could not embark on Trump's recommended three-phase programme to ease stay-at-home restrictions because the

testing regime was still not good enough.

Virginia's governor, Ralph Northam, a Democrat, told CNN's State of the Union he had been "fighting" for testing. "For the national level to say that we have what we need, and really to have no guidance to the state levels, is just irresponsible, because we're not there yet."

Maryland's Republican governor, Larry Hogan, agreed and said it was "absolutely false" to say that governors had enough testing capacity.

Despite the huge fall in the oil price – seen as a barometer of the prospects for the global economy – there were signs from other parts of the world that economies could soon begin getting back to normal.

In Germany, smaller shops were set to reopen on Monday for the first time in a month after politicians declared the coronavirus "under control". From florists to fashion stores, the majority of shops smaller than 800 square metres (8,600 square feet) will be allowed to welcome customers again, in a first wave of relaxations to strict curbs on public life introduced last month.

Chancellor Angela Merkel and regional state premiers announced the decision to reopen last week, though they have been careful to cast it as no more than a cautious first step.

On the other side of the world, New Zealand prime minister Jacinda Ardern said the country's stringent lockdown would be eased next Monday barring any major upsets.

She said the measures had "stopped a wave of devastation" but even under the revised regime, most New Zealanders would still be required to stay at home most of the time. Meal deliveries would be permitted and shops would be allowed to re-open providing they only sell goods online.

In Australia, some beaches in Sydney were reopened in a sign that the country was moving towards normalising daily life. The government wants at least 40% of the population to download a tracing app on their phones to help track cases of the disease before lockdown curbs are eased.

In other global developments:

- There have now been more than 2.4 million confirmed cases and 165,000 deaths from Covid-19 worldwide. The news came as US deaths passed 40,000 on Sunday – nearly a quarter of the global total – with infections at just under 760,000, or just under a third of the world's total.
- The lack of protective personal equipment for health service workers in the UK intensified after it emerged that 400,000 gowns ordered from Turkey did not arrive as planned on Sunday. The British government has been widely criticised for failing to ensure that NHS staff have enough proper equipment to protect themselves from contracting Covid-19, along with other shortcomings in its virus response. The UK has more than 121,000 cases and 16,000 deaths.
- France reported another 395 coronavirus deaths on Sunday as hospital admissions continued to decline. The daily death toll also fell sharply in Spain and in Italy the official daily toll from coronavirus edged down to 433 on Sunday, the lowest figure in one week.
- South Korea reported fewer than 20 new cases of the virus for the third day in a row. On Monday it announced 13 new infections, bringing the nation's total infections to 10,674. For the third day running, no deaths were reported in China.
- A Japanese expert in infectious diseases, Kentaro Iwata, a professor at Kobe University Hospital, said he was pessimistic about the country's prospects of holding the Olympic Games despite their postponement until next

year. Meanwhile, the country's trade surplus dropped 99% in March thanks to the impact of the virus on its large export sector.

- The world's top male tennis player, Novak Djokovic, has admitted that his opposition to vaccinations might prevent him from rejoining the tour.

SC is writing a great energy success story – and offshore oil should be part of it



There are always ear-piercing protests and plenty of hand-wringing from anti-development activists who say that the United States is doing too little on the environmental front – and who reflexively oppose any kind of energy development.

These anti-energy activists along with a few politicians are starting to get attention in South Carolina for their efforts

to oppose all energy production, including what might be available far off South Carolina's shores. These anti-energy critics are hiding behind the same old rhetoric; they are ignoring America's real and tangible environmental progress.

No one is saying that drilling off our coast would happen tomorrow, but South Carolinians should at least know and understand all of our energy options before they are taken away from us by misguided policies.

It's also time for Americans and South Carolinians to hear the United States' greatest untold success story. Thanks to natural gas, offshore energy technology, conservation, efficiency and increased wind and solar power use, America is now leading the world in cutting air-polluting emissions.

Contrast that environmental victory with the opposite path being taken by China, the world's biggest greenhouse gas emitter. China hasn't even promised to make an overall reduction in emissions in the Paris agreement; it merely promised to stop increasing emissions by 2030.

The reality is that if we want to continue our environmental progress, we need to continue to utilize all our energy resources – including natural gas and offshore and onshore oil.

So what about the Palmetto State, where more than 65 percent of energy needs are met by oil and gas? From 1990 to 2017 emissions across South Carolina fell 89%, according to a recent analysis by the Consumer Energy Alliance. And these trends occurred while low-cost natural gas deliveries to fuel South Carolina electricity plants quadrupled over the last 10 years – and while manufacturing growth has surged 46% to the current \$38.7 billion annually.

Meanwhile, a recent Consumer Energy Alliance report found that South Carolina families and commercial and industrial businesses saved more than \$6.4 billion in natural gas costs

between 2006 and 2017.

Energy options

We could go on and on, but the truth is clear: we are diversifying our energy portfolio while producing the cleanest energy on the planet during a time of record production – and this plainly demonstrates how energy production that fuels economic growth can and should happen alongside sound environmental stewardship.

When people start talking about offshore energy exploration bans in the name of environmental protection, let's tell them how we're already making the environmental progress we need hand-in-hand with energy production.

Let's keep our energy options available, South Carolina, and let's not fall for the factually questionable rhetoric of anti-energy activists. At a time like this we need low-cost and environmentally responsible energy to keep prices low for our families and small businesses all across America.

It's how we can keep writing our greatest untold story.

Katon Dawson is the South Carolina director of the Consumer Energy Alliance, which is based in Columbia.

For Oil and Its Dependents, It's Code Blue



If oil has been laid low by the coronavirus, then the nations whose economies most depend on it might soon be on ventilators. By any prognosis the great oil price collapse of 2020 has pushed the world's most volatile commodity into Code Blue.

No one expects oil, its peddlers or consumers to emerge wealthier or wiser from this crisis. Oil company bankruptcies, already happening before the pandemic, will escalate. And more petro states will begin to stumble, like Venezuela, down the rabbit hole of collapse.

The pandemic, combined with suicidal overproduction and a brief price war between Russia and Saudi Arabia, has reduced oil consumption and revenues on a scale that is mindboggling.

Prior to the pandemic, the world gulped about 100 million barrels a day, filling the atmosphere with destabilizing carbon. Today it sips somewhere between 65 million and 80

million barrels.

At least 20 to 30 per cent of global demand has vanished and nearly two dozen petro-producing countries including Canada have agreed to withhold nearly 10 million barrels from the market. Few expect this agreement will stop the price bleeding.

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In fact, the price of Western Canadian Select or diluted bitumen remains below five dollars a barrel – cheaper than hand sanitizer. That’s a drop of more than 80 per cent compared to the month before.

Because the spending of oil fertilizes economic growth and expands national GDPs, most of the world’s economists now predict a long depression after the pandemic.

A depression, by definition, means less energy spending, which translates into ongoing low energy prices that already no longer cover the cost of extraction in many places.

And what happens if the pandemic comes in three waves like the deadly Spanish flu of 1918?

The patient was already sick

Art Berman, one of North America’s most astute and consistently reliable oil analysts, admits the pandemic is compounding the problems of an industry and global economy already in waning health.

“Energy is the economy, and oil is the largest and most productive part of world energy. The global economy has been dying of accumulated debt for 50 years. Coronavirus has sent it to the intensive care unit.

“If the economic patient survives the ICU, it will need a long

period of recovery and therapy before returning to its previous life.”

Wood Mackenzie, the British consultancy, now estimates that 10 per cent of global oil production is uneconomic insanity at prices below \$25 a barrel.

Heavy oil of the sort Canada produces requires extensive upgrading and pricey transportation costs. It’s always the first to feel the pinch of any volatility because of its high cost – about \$45 a barrel.

In comparison, the petro states of Russia and Saudi Arabia can pour oil into the marketplace for less than \$10 a barrel – though as the brief price war attested, not for long. Saudi Arabia actually needs \$80 a barrel oil to balance its budget, which like every typical petro state, it is not doing.

The fading dream of Canada as petro-power

Canada, the world’s fourth largest oil exporter, banked its destiny on the export of low-grade bitumen with no strategic risk planning. As a result it will experience huge economic losses and roller-coaster volatility for its currency.

Alberta promoted over-production and pressed for new pipelines to carry the increased flow. Now, as global demand plummets, it can no longer fill the pipelines it has.

Rystad Energy, the proficient Norwegian-based analyst, has already noted that of all the world’s oil producers, Canada will be “the most affected so far.” Lacking buyers at a suitable price, it will produce well below its capabilities this year, “shutting in” nearly 1.1 million barrels per day.

Investment in the oilsands, which reached highs of \$30 billion in 2014, has now dropped to below \$6 billion this year. In addition, Canadian oil and gas companies have further trimmed their spending by more than \$10 billion.

The U.S.-based IHS Markit, another big data firm, describes the price collapse as “unprecedented” and says “the impact on the basin is expected to be protracted” with “long lasting ramifications” for the region.

Canada’s six largest banks, which loaned \$58.8 billion to the Canada’s overleveraged oil industry in 2019 – a 59 per cent increase in the last five years – might quietly be panicking in board rooms at an appropriate physical distance.

Robyn Allan is an independent economist who before the pandemic and oil price wars persistently challenged the economics touted to support the Trans Mountain pipeline. She foresees much trouble ahead for the industry.

“After this crisis, things will not return to where they were. All economic activity is affected by the virus outbreak. And just like some people who catch it and move from home to hospital to ICU because of weak systems or pre-existing conditions, the tarsands were already an aging and compromised activity that was on the downside of its life cycle. Big Oil in Canada was going to be hard hit without COVID-19. With it, many companies are going to go under – and go under quickly.”

Allan says the trend lines will sharpen the choices Canada’s political leaders must make. “As long as government continues to pander to the needs of Big Oil at the expense of the needs of society and the environment, it will spend money unwisely.”

‘Gasmaggedon’ hits BC

Natural gas, whose price is often tied to oil, is another sick patient on oxygen. Many analysts refer to that fuel’s price collapse as “gasmaggedon.”

A global glut plunged prices to record lows last year, and now the pandemic has lowered them again. A succession of warm winters has flattened the demand for gas heating, which just adds to the economic storm.

Rystad Energy predicts that if low prices persist – and most forecasts suggest low prices for years – “nearly 42 per cent of Australia’s gas resources would be rendered uneconomic – a scary thought to the world’s largest gas exporter.”

Such prospects must weigh heavily on B.C. Premier John Horgan. His government has actively subsidized the province’s faltering fracking industry, along with Shell’s LNG Canada terminal.

His province’s billion-dollar subsidies include the construction of the Site C dam to provide cheap electricity to the LNG industry. Horgan and his predecessor Christy Clark promised that an LNG windfall of revenue and jobs would justify the low royalties, loosened environmental restrictions, strained First Nations relations and gambled taxpayer money on the emerging export industry.

Now that promise looks undeliverable, as the pandemic rocks B.C.’s economy and a healthy global LNG market recedes from view.

Fracked oil’s business model ‘does not work’

By any measure, the pandemic found the oil industry suffering from the financial equivalent of obesity, high blood pressure and diabetes. Already half the industry, inflated by cheap credit, was struggling with high-cost technology, chronic overproduction and low prices.

Although fracking tight oil formations in the United States turned that country into a temporary oil exporter, the artificial boom contained the seeds of its own bust.

Because fracking requires constant drilling due to rapid depletion of shale formations, most companies have spent more money than they’ve earned over the last decade. In fact, most frackers started as pure speculative plays designed to be flipped like some super-hyped stock.

Even before COVID-19 exploded in the U.S., public lenders and the Wall Street Journal repeatedly flagged the industry as unsustainable.

“By now, it should be abundantly clear that the current shale oil business model does not work – even for the very best companies in the industry,” the investment firm SailingStone Capital Partners explained in a recent letter.

The imminent deaths of ‘zombie companies’

Bankruptcies in both Alberta and Texas have been rife. Bernard F. Clark Jr., a lawyer with Haynes and Boone, explained to the Wall Street Journal on Jan. 27 why so many companies were going broke long before the virus arrived.

“They’re called zombie companies. The creditors would keep them on life support by not calling the notes and just restructuring them and extending the maturity, kicking the can down the road. Now there’s no incentive for the creditors to continue to keep those companies on life support.”

The proliferation of zombie companies, which has left Alberta with tens of billions worth of orphaned and inactive wells, reflects a systemic crisis that has been gnawing away at the industry for years.

In the 1980s, the oil and gas sector occupied 28 per cent of the Standard and Poor’s Index; today it barely accounts for 2.6 per cent. For the last decade the industry has consistently delivered poor returns in the stock market because fracked oil, like bitumen, costs more to extract and requires higher prices to pay off debt, let alone make a profit.

Most importantly, fracked oil and sulfurous bitumen deliver lower energy returns than cheap oil. Lower energy returns mean diminished financial rewards, profits, revenues and taxes.

To understand the importance of energy returns, consider what your own body needs. If you expend more energy procuring dinner than you can extract from it, then your future will likely involve rapid weight reduction or starvation.

One hundred years ago, cheap oil was easy to extract. It was, says Spanish analyst Antonio Turiel, comparable to drinking a glass of water. Today that glass is either full of abrasive sand or so empty that a complex operation to condense water from the air is required.

When civilizations, just like humans or any other animal, experience diminishing energy returns, they either shrink or collapse or do both.

It was once feared that the extra effort and expense needed to extract "tight" or difficult oil would result in such high prices that the economy would be brought to a standstill.

But that's not how things are falling out. We haven't run out of oil. Instead, we have run out of demand for oil at high enough prices to smoothly run the petro-economy. This is tied to "excessive wage and wealth disparity," notes the accountant Gail Tverberg.

In short, "commodity prices that are too low for producers" are in other places too high for consumers.

The financial casualties will surge

In a recent presentation to the Texas Railroad Commission, which regulates that state's oil production, the Institute for Energy Economics and Financial Analysis noted that North America's industry is contracting due to high debt, risible cash flows and extreme costs.

IEEFA, which supports a move to cap or "shut in" a million barrels of production a day in that state, described the industry's future in frank terms. It will consist of fewer

companies. They will extract less oil and gas. They will be highly competitive – much like Canada's top five oilsands producers. They will produce fewer revenues for their dependent states, and as a result their outsized political power will gradually erode.

Art Berman predicts shale plays won't vanish, but their output will be lower. "Many companies will disappear. I doubt that oil production or prices will return to 2018 levels for many years."

He ends with this tidy summary of the crisis: "It seems unlikely that what is happening today will cause society to experience some transformative epiphany that will end the age of oil. If anything, we will need inexpensive liquid fuel more than ever in a poorer world. Rather than seeing 2020 as a year of unspeakable loss, it is my sincere wish that we somehow find ways to live better with somewhat less."

In the meantime, jurisdictions particularly dependent on oil and gas extraction are having to jarringly recalibrate their budgets and expectations amid rising political tensions.

Alaska, which garners about 34 per cent of its revenue from oil, thought the resource would be selling for \$66 a barrel right now. Alberta, which depends on oil to cover 10 per cent of its budget, said it needed \$58 a barrel. Nigeria, Texas, New Mexico, Iraq, Iran, Algeria, you name it – all made similar projections.

All face plummeted prices – U.S. crude, for one example, tumbled to an 18-year low of \$18 a barrel on Friday.

Newfoundland once boasted, in 2009, that 30 per cent of its revenue came from offshore oil. Now it is less than 10 per cent, and as runaway debt due to its hydroelectric megaproject takes its toll, that province sits on the verge of bankruptcy.

Add Newfoundland to the list of petro-states small and large

that were already wheezing before Code Blue. Now the pandemic has put them on economic ventilators with no guarantee of quick recovery. 🤔