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INTRA-REGIONAL ENERGY COOPERATION

UNLOCKING THE MIDDLE EAST'S POTENTIAL

Jean-François Seznec

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MOSIS, GRADUATE STUDENT AT JOHNS HOPKINS SCHOOL OF ADVANCED
INTERNATIONAL STUDIES.*

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THE MIDDLE EAST INSTITUTE
1761 N STREET NW
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ABBREVIATIONS

A.G.P.	Arab Gas Pipeline
B.A.S.F.	Badische Anilin and Soda-Fabrik
DAP	diammonium phosphate
G.C.C.	Gulf Cooperation Council
I.P.S.A.	Iraqi Pipeline in Saudi Arabia
J.V.	joint venture
MENA	Middle East and North Africa
L.N.G.	liquid natural gas
N.G.	natural gas
O.C.P.	Office Chérifien des Phosphates
SABIC	Saudi Arabia Basic Industries Corporation
U.A.E.	United Arab Emirates
U.N.	United Nations

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SUMMARY

Given the vast quantity of energy resources in the Middle East and North Africa, the level of wealth distributed among most in the region is surprisingly low. The region has failed to harness its natural resource wealth to reach its full potential. Instead of cooperating to enhance the economic and industrial prowess of the region, the majority of energy-rich states have pursued a go-it-alone approach in developing their energy-export capabilities, and have mostly targeted markets outside the region. Energy expert Jean-François Seznec argues that intra-regional energy cooperation is a sorely missing aspect in the Middle East and North Africa, costing the region in terms of its economic potential. Identifying partners within the region for the trade and production of oil, natural gas, minerals, and industrial goods has the potential to reduce production costs and maximize benefits for all countries in the Middle East.

KEY FINDINGS

- ◆ There has been very little regional cooperation on mutually beneficial energy relations, even in the richest areas of the Middle East
- ◆ Many attempts at energy cooperation between MENA countries have been derailed by geopolitical rivalries
- ◆ Remittances and other benefits of economic growth in the Gulf states have been too limited to make a significant impact on the welfare of other countries in the region
- ◆ There exist ample opportunities for mutually beneficial energy cooperation between Morocco and Algeria, Qatar and Saudi Arabia, and Iran and the G.C.C. that, if realized, could result in significant economic benefits for all parties
- ◆ Energy cooperation presents an opportunity for the countries of the Middle East to forge new partnerships and take steps toward resolving the historical differences currently inhibiting peace and prosperity

INTRODUCTION

For the past few generations, it has been hard to blame those pessimistic about the future of the Middle East. Certainly, in early 2016, the region appears to have fallen into a state of permanent decay. On the other hand, it would be unfair to forget some of the achievements of the past 40 years, many of which have been based on the region's natural comparative advantage of plentiful and low-cost energy. Energy in the Middle East does not consist merely of the extraction of crude oil or natural gas (N.G.), but also includes the development of large energy-based industries such as chemicals, fertilizers, cement, and metals.

However, when it comes to mutually beneficial energy relations, there has been very little regional cooperation, even in the richest areas of the Middle East. Of course, the mere production of crude oil and N.G. does not necessitate much local exchange, but it should have at least encouraged substantial trade between, for example, Algeria and Morocco, Qatar and Saudi Arabia, Iraq and Kuwait, or Oman and the United Arab Emirates. Until now, however, the majority of relations between energy consumers and producers has been inter-regional in character as opposed

to intra-regional, meaning it has occurred predominantly between the Middle East's energy producers and the industrial world's consumers, including those in Europe, North America, and the Far

East. This lack of energy and industrial commerce between Middle Eastern countries is mostly due to political reasons. Countries across the Middle East and North Africa (MENA) have not developed relations based on trust, let alone resolved age-old conflicts and rivalries. Essentially, the lack of energy cooperation has been due to a lack of good governance.

“This lack of energy and industrial commerce between Middle Eastern countries is mostly due to political reasons.”

Naturally, if this trend of little cooperation and subpar governance continues, we will see more of the same. MENA countries, and in particular those of the Gulf, will compete not only among themselves, but also with other world producers such as Russia and now the United States, for their share in global crude oil and N.G. markets. Better-endowed countries with a vision to develop industrial downstream ventures, in particular the U.A.E., Qatar, and Saudi Arabia, will move away from their dependence on energy sales and start investing their resources into downstream, value-added products, most notably petrochemicals and fertilizers.¹ However, without intra-MENA cooperation, these industries will find themselves in a familiar predicament, competing with each other for

limited markets.

Indeed, this is already occurring.

Large Saudi chemical, fertilizer, and aluminum

production is competing with

similar products

“The majority of relations between energy consumers and producers has been inter-regional in character as opposed to intra-regional.”

from Kuwait, Morocco, Algeria, and Qatar, in markets across China, the United States, Europe, and even India.

This condition of counterproductive competition does not have to continue. With some global vision by the region's leaders, we could see cooperative arrangements between neighbors that would minimize their respective production costs, maximize their production levels, and allow all to compete with the world's major producers of advanced goods.

HISTORICAL INTRA-REGIONAL COOPERATION

Admittedly, there have been myriad attempts by regional powers to cooperate on energy issues. Yet, as history shows, many of these have been wrecked by political differences and regional conflict. Decades ago, Iraq and Syria started cooperating on a mutually beneficial pipeline connecting the Kirkuk oil fields in northern Iraq to the Syrian port terminal of Banias on the Mediterranean.

Brought online in 1952, the Kirkuk-Banias pipeline marked a significant point of evolution for Iraq's oil industry. It also provided Syria with preferentially priced oil for domestic use, thus allowing Syria's own oil production to be exported at advantageous market prices. The arrangement, however, would prove to be short-lived. In 1956, when the pipeline was still under Anglo-French ownership, Syrian forces attacked and badly damaged it in response to the British and French invasion of the Sinai Peninsula, as well as Iraq's acceptance into the Baghdad Pact. While it would come back online shortly thereafter, operations were halted once again in 1972 over tariff disputes, effectively putting the pipeline out of use until 2001. It was then that Saddam Hussein used the pipeline to bypass export-crippling U.N. sanctions, a practice that ended when the pipeline became a target of U.S. airstrikes during the 2003 invasion.²

It was in response to the 1970s and 1980s Iraq-Syria tariff disputes, as well as

concerns over export security arising from the Iran-Iraq war, that Iraq's Hussein initiated a concerted effort to diversify his country's export routes. One such initiative was the construction of a pipeline through Saudi Arabia to the Red Sea port of al-Muajjiz near Yanbu, known as the I.P.S.A. Ironically, the Saudis shut down this attempt at export security in retaliation for Iraq's 1990 invasion of Kuwait, once again demonstrating how geopolitical rivalries supersede economic cooperation. The I.P.S.A. has been upgraded and operated by Saudi Arabia for domestic use ever since.³ Similarly, the Trans-Arabian Pipeline (known as the Tapline), which had transported oil from Saudi Arabia through Lebanon and Jordan to the Mediterranean Sea and provided revenue for Jordan, Syria, Lebanon, and Saudi since 1950, was also closed by Saudi Arabia in response to Jordan's support for Iraq after the latter's invasion of Kuwait.⁴ Admittedly, the Tapline had increasingly grown out of favor starting in 1975 partially due to the growth of supertanker trade, but also due to transit fee disputes emanating from Syria and Lebanon.

“This condition of counterproductive competition does not have to continue.”

PRESENT INTRA-REGIONAL COOPERATION

Presently, upon this checkered background of cooperation exist a number of intra-regional energy projects in various stages of success and failure. The prime example of success among these is the Dolphin Gas Project. Conceived in 1999 and becoming operational in 2007, the project involves the transportation of natural gas from Qatar's North Field in Ras Laffan to the U.A.E. and Oman. Costing over \$7 billion and holding an export capacity of 3.2 billion standard cubic feet per day, the Dolphin Pipeline is the Gulf's first cross-border gas project. However, the project was delayed for several years by Saudi Arabia's steadfast opposition. The Saudi objections were based on the fact that the pipeline would traverse Saudi territorial waters, a claim that the U.A.E. never accepted. The border dispute at the junction of Qatar, Saudi Arabia, and the U.A.E. has never

“The amount of energy cooperation between Middle Eastern states is minuscule.”

been settled and although Saudi Arabia finally allowed the project to proceed, it did so begrudgingly and could always revive the problems. Even between the U.A.E. and Qatar, the price negotiated by

the parties many years ago is subject to much bickering. The contract specifies that Qatar will be paid \$1.4/mmbtu,⁵ which is much lower than the usual netback of \$6/mmbtu that Qatar was getting for its exports of L.N.G. to the Far East. After the energy price crash of mid-2014, the netback to Qatar on its Far East sales is much lower today, probably below \$4/mmbtu. The Dolphin Project's capacity could have been expanded greatly had both parties agreed to a fair price. The Qataris know that the U.A.E. exports its own L.N.G. at world prices, which went as high as \$18/mmbtu to Japan in the 2010s, while importing gas by pipeline from Qatar at the \$1.4/mmbtu rate mentioned above. When both parties can sit down with realistic views on prices, perhaps a compromise can be reached. In the meantime, the U.A.E. is spending vast sums developing tight gas formations, which may cost up to \$6/mmbtu through a joint venture with Occidental Petroleum, and may even one day be open to importing gas from Iran.

The Maghreb-Europe Pipeline further demonstrates the difficulty for intra-regional cooperation. While the pipeline is predominantly used to transport Algerian N.G. to Spain and Portugal, a portion of the pipeline goes through Morocco, hence bringing in an intra-regional aspect. Though the pipeline had been discussed for decades, its development was impeded by the political deadlock between Algeria and Morocco due to the conflict in the Sahara, and the pipeline did not become feasible until the 1988 U.N. agreement eased tensions.⁶ Admittedly, the conflict is not fully resolved, but the pipeline provided a starting point for cooperation between Algeria and Morocco, and has even resulted in the limited sale of Algerian gas to Moroccan power plants via the pipeline.⁷ It is this nascent energy relationship that acts as an example of future opportunities for mutually beneficial cooperation, an example that this paper will discuss at length. Unfortunately, the relationship between the two neighbors has taken a turn for the worse and the burgeoning relationship has come to a complete dead-end. Since the N.G. sent from Algeria to Spain is transferred under extensive international agreements and loans, the

disagreements have not stopped the flow. However, Algeria now uses other pipelines to Europe: one directly to Spain and the other through Tunisia.

The troubled relationship between the Iraqi Kurds and Baghdad, and the subpar performance of the A.G.P., provide further examples of the region's troubled attempts at cooperation. With the Kurds striving for greater autonomy, Baghdad insisting on stronger centralization, and energy revenues fueling both sides' budgets, an amicable long-run profit-sharing agreement for Iraqi energy resources seems largely improbable. Oppositely, in the case of the A.G.P., which brings Egyptian N.G. to Jordan, Syria, Israel, and Lebanon, and even procured cooperation from Turkey and Iraq, the issue is not geopolitical relations, but Egypt's own domestic affairs. Egypt's logic-defying energy subsidies and serious domestic N.G. shortages, coupled with constant targeting of the pipeline by militants, have collectively shut down the pipeline's operations. Moreover, despite Egypt's recent massive gas discovery at the Zohr field, it is still doubtful that

“the Dolphin Pipeline is the Gulf’s first cross-border gas project.”

the North African country will resume N.G. exports anytime soon. In addition to these examples, numerous other ongoing projects have been proposed, including the Iran-Iraq-Syria Friendship Pipeline, and the competing Qatar-Turkey pipeline, which would run through numerous states in the Gulf and the Levant. Both remain held up due to financial and geopolitical roadblocks.

INTER-REGIONAL COMMERCE AND ITS DOMESTIC RAMIFICATIONS

Considering the size of the international energy trade, the amount of energy cooperation between Middle Eastern states is minuscule. A natural evolution of trade took place between the markets that needed energy, mainly in the industrial world, and those able to produce it in the Middle East. This developed into well-tread routes that have not evolved. In particular, the Gulf states and North Africa have traded oil for goods with Europe, the United States, and the Far East since the 1950s. There were no efforts to develop markets within the Middle East, in great part because there was little to exchange.

Saudi Arabia was looking to modernize in order to start providing its citizens with living standards similar to those enjoyed in Europe and the United States. To do so it needed cars, air conditioners, TVs, and implements and machinery of all sorts, none of which could be found in the countries of the Middle East. Certainly in the 1970s, Iraq and Syria, under the impetus of the Ba'ath party, sought to develop consumer goods industries.⁸ Iraq in the 1970s was producing televisions, washing machines, and other household goods for its own market and closed its borders to imports to encourage domestic production. It was also during this period that Iraq's Ba'athist leadership built heavy industrial complexes such as the petrochemical complex at Basra and the iron and steel

mill at Khor al-Zubair.⁹

It tried to sell many of its consumer products to neighbors through fairs held from time to time in Bahrain or Dubai. However, the quality

“There were no efforts to develop markets within the Middle East, in great part because there was little to exchange.”

of these products was extremely poor and could in no way compete with more advanced and better-designed Western, Japanese, or Chinese goods. Hence, exchanges between Middle

East countries remained mostly nonexistent. Furthermore, Iraqi and Syrian products, which had been developed according to Soviet models of distribution and manufacturing, were rejected even by the Iraqis and Syrians themselves. Eventually, the local plants shut down and borders were slowly opened to Eastern and Western products, albeit with significant tariffs to maintain some income for the state. In Iraq, this transition away from domestic production was also catalyzed by the descent into war with Iran.

On the other hand, the Gulf countries did not close their borders to overseas products. While there were efforts to develop manufacturing within the Gulf, mainly in the U.A.E. and Saudi Arabia, the model of development was quite different from the Soviet style seen in Iraq. The Gulf countries, especially Saudi Arabia, provided substantial incentives to state-owned and private companies to develop manufacturing using Western and Japanese technologies. Joint ventures were greatly encouraged. For example, in the early 1980s, SABIC started establishing manufacturing bases through 11 joint ventures with the likes of Sumitomo and Mitsubishi. Their products were made at the highest standards and initially sold by the foreign partners overseas. In development economics terms, the Gulf states followed an ‘export-led growth’ model that capitalized on their natural comparative advantages, primarily in downstream products, instead of the ‘import substitution’ employed in Syria and Iraq.

Today, SABIC ranks among the world’s top petrochemical companies. It has learned or bought technologies from its foreign partners, established its own research centers, and is filing for its own patents, all while still working with Western and Japanese firms on technologies it has yet to master. This approach has led them to become the second largest chemical company in the world. SABIC’s growth has admittedly had nothing to do with the other countries of the Middle East. Instead the company has followed a purely North-South, or East-West, model of trade, opposed to a South-South, regionally cooperative

“The Gulf states followed an ‘export-led growth’ model that capitalized on their natural comparative advantages.”

one, which could have potentially beamed beneficial results for Saudi Arabia and its neighbors.

By the same token, the development of the U.A.E.'s economy, and Dubai's in particular, is primarily oriented toward the Far East, Europe, and Africa. The Jebel Ali Port, a key part of Dubai's economy that has grown into the third-largest container port in the world, receives myriad goods that are transformed, stored for redistribution, or re-exported. To a certain extent, however, there is a Middle East component to this exchange. Many international companies, like Chrysler, General Motors, and Sony, bring containers through the Jebel Ali Port and unload the containers in huge warehouses in the Jebel Ali Free Trade Zone.

They then re-export the spare parts and products in smaller batches by road or air to other countries of the region. In some cases, firms will actually manufacture goods in Jebel Ali for export to countries like Pakistan or Iran.

This allows the firms

to take advantage of Dubai's low-cost foreign labor, much of which comes from India or Pakistan, instead of manufacturing directly in the subcontinent. These exports then give the firms the right to legally take foreign exchange out of Pakistan or Iran, a practice that would otherwise be limited by often strict capital controls. These arrangements do not seem to qualify as Middle East cooperation though. The goods are manufactured using imported raw materials or semi-manufactured products, assembled with imported labor, and finally exported; however, the local content is minimal. Moreover, in the Pakistani case, the practice is more of a systematic effort by merchants to bypass Pakistan's stifling commercial and financial regulations. Where this pattern of commerce has little benefit for Pakistan or Iran, Dubai benefits substantially. Its financial sector receives funds from companies who rent offices, warehouses, and homes.

“One of the win-win cooperative efforts that had the potential to develop between the Gulf countries and the rest of the Arab Middle East was the effort to capitalize on MENA’s large labor pool.”

Similarly, its merchants sell cars, furniture, and all manner of advanced services to the foreign industries and their employees. Accordingly, it is not a win-win exchange. Instead, there is ultimately a transfer of funds out of Pakistan and Iran to Dubai, resulting in a net loss to those two countries and a net gain for the emirate.

One of the win-win cooperative efforts that had the potential to develop between the Gulf countries and the rest of the Arab Middle East was the effort to capitalize on MENA's large labor pool to develop the Gulf's services and industries. Indeed, at one point there were over two million Egyptian workers in Saddam Hussein's Iraq, mainly in agriculture and construction. When Egypt aligned itself against Iraq in the First Gulf War, these Egyptian laborers, who had contributed greatly to Iraq's agricultural development and supplied critical services and skills when Iraq was entrenched in war, were treated ruthlessly and often deported without access to their

savings or belongings.¹⁰

While there are to this day

“The vast majority of remittances go to benefit non-Arab communities.”

a good number of Egyptians and Moroccans in various Iraqi service industries, the inability to fully capitalize on this capable and willing Arab labor pool shows how easily regional political factors derail potential economic endeavors. In fact, while Arab workers initially dominated the expatriate population, presently most of the expatriate labor in the Gulf comes from South or Southeast Asia. This transformation was quick and dramatic. Where Arabs represented 72 percent of the Gulf's expatriate population in 1975, by 1985 63 percent of the Gulf's expatriate workforce was Asian.¹¹

Research by the Kuwait Financial Center in 2015 estimated that there are 25 million expatriate workers in the Gulf, with the majority coming from India, the Philippines, Bangladesh, Pakistan, Indonesia, and Sri Lanka, and a minority portion coming from Egypt and Yemen. These laborers, engineers, and accountants, who constitute upwards of 75 percent of the private labor force, produce substantial remittance outflows, which were estimated to reach \$100 billion in 2015,¹² up from \$70 billion in 2012.¹³ While admittedly Egypt and Yemen do receive a minority share of these remittances, the vast majority goes

to benefit non-Arab communities. A larger share of these jobs and remittances could have been a major example of the Middle East as a whole benefiting from oil revenues. Unfortunately, there has been a systematic effort by the Gulf states to limit the flow of Arab expatriates. This effort has arisen due to political, economic, and social factors.¹⁴ In 1990, Saudi Arabia deported 700,000 Yemenis after the Sanaa government supported Saddam Hussein's invasion of Kuwait.¹⁵ Similarly, as previously mentioned, Iraq sent back the majority of its Egyptian workers in 1990. Relatedly, the U.A.E. has been wary of Egyptian expatriates ever since the days of Gamal Abdel Nasser, initially due to fears of Arab nationalism, and more recently due to a weariness toward the Muslim Brotherhood.¹⁶

Opposed to this aversion to cooperation, a mutually beneficial and natural exchange could have found the Gulf welcoming Arab workers in order to further spread the benefits of the Gulf's energy wealth, while

“The Moroccan-Algerian case is perhaps the most egregious example of power politics destroying the great potential of a region.”

simultaneously fulfilling its domestic labor needs. Instead, the Gulf countries have worried about the potential ‘Egyptianization’ of their own societies.¹⁷

With all these factors in mind, it seems that the international economics concept of developing one's natural and comparative advantage for the betterment of all is foreign to the Middle East. Indeed, the World Trade Organization's concept of trade as a win-win situation is subordinated in the Middle East to a concept of trade and commerce as means of establishing control over another state or society. This may be a holdover from the colonial era, or it may be a byproduct of suspicious attitudes rife among diverse groups, or both. Either way, it seems that factors quite ingrained in the soul of leadership and people alike are limiting efforts at regional cooperation.

Should Middle Eastern states continue with business as usual, the wealth of the few will increase and continue to grow based on the East-West or North-South exchanges mentioned above. Intra-regional links will remain low and the common benefits of international trade at the regional level will not happen.

Countries like Egypt or Syria, when at peace, will continue to flail about development, but remain hopelessly stuck to their third world status, while the Gulf states reach levels at par with or above Western standards.

POTENTIAL FOR FUTURE COOPERATION

One cannot expect people's attitudes to change overnight. Yet, they can be expected to see the benefits of modern economic development. If exchanges can be promoted without political, ethnic, or sectarian baggage, the benefits of win-win exchanges could develop.

The low-hanging fruit of cooperation, which could be established in the immediate future and provide political-free benefits to all the parties involved, seem to be few and far between. Nonetheless, there appear to be three areas of energy-related cooperation that could maximize benefits to all parties:

1. The creation of trade and manufacturing exchanges between Morocco and Algeria for N.G., phosphates, advanced fertilizers, and various finished products
2. Industrial investments and trade within the Gulf Cooperation Council, namely Qatari N.G. exchanged for Saudi or U.A.E. products
3. Trade and investments between Iran and the Gulf countries

1. MOROCCO-ALGERIA

The Moroccan-Algerian case is perhaps the most egregious example of power politics destroying the great potential of a region. Morocco has the largest phosphate reserves in the world and has developed infrastructure to maximize the return on this resource. It has established some of the world's most modern and advanced techniques for the extraction and processing of phosphate. For example, it has developed the Port of Jorf Lasfar, which receives and processes phosphate from the mines in Khouribga some 95 miles away. In the past, the phosphate had to be cleaned, loaded on trains, and transported to either Jorf Lasfar or Casablanca. Once there, it could only be exported as rock phosphate

of little value to be refined into usable fertilizer in other countries. Today, at the Port of Jorf Lasfar, cleaned rock phosphate can be made into phosphoric acid through the addition of water and sulphuric acid, then dried and exported as phosphoric acid or processed further by the addition of ammonia into diammonium phosphate (DAP), a much more valuable product. However, the cost of transport and the amount of water necessary for production diminishes the Moroccans' profit margins significantly. To mitigate this, Office Chérifien des Phosphates (O.C.P.), the phosphate company of Morocco, designed and built a pipeline from Khouribga to Jorf Lasfar, which now transports a slurry of phosphate for almost one-tenth the cost and saves huge amounts of water, in a very dry climate. Further, it built an industrial zone in Jorf Lasfar to attract foreign investors to make the DAP for export to their own country. O.C.P. also makes its own DAP for export mainly to South America and Europe. However, O.C.P. is not as competitive as it should be. The production of phosphoric acid and DAP requires large volumes of sulphur and ammonia. Most sulphur produced today is a by-product of crude oil extraction, and ammonia is made with the methane from natural gas. O.C.P. currently purchases these two products from countries far and wide, including from Saudi Arabia, at international prices and at

significant transportation costs, in turn burning potential revenue.

“Should Algeria and Morocco accept to work together, it could produce fertilizers at the most advantageous price in the world.”

The lost opportunity for intra-regional cooperation arises when one realizes that Algeria, Morocco's neighbor, is one of the world's largest producers

of sulphur and ammonia. Yet, neither Morocco nor Algeria wish to trade or invest in each other's industries. Should Algeria and Morocco accept to work together, it could produce fertilizers at the most advantageous price in the world. A simple joint venture in Jorf Lasfar could receive gas directly from Hassi R'mel in the Sahara and convert it into ammonia. In the same manner, sulphur could be delivered from Algeria. In return, Algeria could be an investor in a value-adding downstream industry from its oil and gas, hence allowing for both

increased revenue and diversification. Both countries would undeniably benefit greatly. One could even imagine that the problem of the Sahrawi people, most of whom have lived in refugee camps since the late 1970s as a result of the Western Sahara War, could be resolved in the same manner. The Moroccan Sahara has phosphate mines, the product of which is sent to Laayoune, the capital of the territory and home to

the territory's only harbor. Morocco has invested very little in developing these resources, and the harbor is old and

“A quick look at Saudi’s neighbors highlights a significant missed opportunity for cooperation.”

inefficient. The phosphate is transported over 60 miles by conveyor belt, cleaned using sea water, and not made into the more profitable products of phosphoric acid and DAP. Here again, Algeria's resources offer a possible economic solution. The gas reservoirs of Algeria are even closer to Laayoune than they are to Jorf Lasfar. This presents the possibility of another Algerian-Moroccan joint venture to develop a modern phosphate infrastructure for the benefit of both countries as well as for the great benefit of the Sahrawi people. This may not happen until the status of the territory is fully settled to the satisfaction of all the parties. However, it is not inconceivable that cooperation on purely economic and mining issues could lay the foundation for a settlement that benefits all involved.

2. QATAR-SAUDI ARABIA

Another example of cooperation that could take place at relatively low cost is the potential for Qatar to sell natural gas to Saudi Arabia. The kingdom is short of natural gas, mainly because its amazing economic growth of the past 40 years has taxed its resources. Saudi Arabia requires huge amounts of natural gas to desalinate water for its 32 million people, generate electricity for its increasingly sophisticated cities, and act as feedstock for its chemical, fertilizer, and metals industries. Admittedly, Saudi Arabia does have a large resource of N.G., which it extracts from the crude oil it produces, and which, unlike other states in the region, it has decided not to export in order to encourage domestic industrialization. This industrial policy has been a huge success, but

the population has grown exponentially, so much so that the demand for N.G. has grown to surpass Saudi's large supply.

To try and alleviate this N.G. deficit, Saudi Aramco, the national oil company of the kingdom, has spent a great deal of effort and capital to develop new sources of N.G. not dependent on crude oil extraction (also called 'dry gas'). It has had success finding large deposits of "dry" N.G., but this new N.G. is sour and rich in hydrogen sulfide, making it very dangerous and costly to produce. Other dry N.G. is available as shale gas, especially in the northern part of the country near the newly opened phosphate mines of al-Jalamid and Wa'ad al-Shamal. However, shale gas is also expensive to bring online and requires large amounts

of water, which is already in short supply in the kingdom and is only available from fossilized non-renewable phreatic wells. It is difficult to know what the cost of extracting and producing this sour N.G. is, but could be as high as \$6/mmbtu. Accordingly, even with the domestic price of gas in the kingdom rising from \$0.75/mmbtu to \$1.25/mmbtu in late December 2015, the extraction

“Qatari-Saudi cooperation could make both countries competitive with chemical juggernauts like Germany’s B.A.S.F. or the United States’ Dow Chemical Company.”

of sour N.G. is not only difficult, but also fiscally counterproductive.¹⁸

Once again, a quick look at Saudi's neighbors highlights a significant missed opportunity for cooperation. Near the industrial areas in Saudi Arabia's Eastern Province lies Qatar's Northern Dome N.G. reservoir, the largest in the world. It would be eminently efficient for Qatar and Saudi Arabia to build a short pipeline from the Northern Dome to Jubail and Ras al-Khair, where the phosphate rock is being processed. The potential fruits of this option are further highlighted by the severe financial strain Qatar is feeling presently. While Qatar holds a massive capacity to produce and export Liquid Natural Gas worldwide, it does so at a price that is linked to that of crude oil, a price that has been in free-fall for over a year. Consequently, at this time, Qatar profits very little for the L.N.G. it exports, including for the previously profitable L.N.G. sent to Japan and Korea. As of early 2016, prices

for L.N.G. to Japan are about \$9/mmbtu, which, after accounting for all of Qatar's costs—mainly transportation, manufacturing, and dues to J.V. partners—results in a netback profit of only \$4/mmbtu. This is a steep fall from prices that hovered around \$16/mmbtu for the last five years, which had in turn provided double digit netback profits. Tellingly, the I.M.F. estimates that Qatar's gross revenues from L.N.G. exports have fallen over 25 percent since 2011,¹⁹ and with hydrocarbon exports acting as Qatar's main source of revenue, it is not surprising that Qatar was forced to post a fiscal deficit for the first time in 15 years.²⁰

It seems that a deal could and should be reached between Qatar and Saudi Arabia. Riyadh could purchase ample amounts of N.G. from Doha at \$3/mmbtu, thus cutting the need to develop very expensive sour gas reserves. For Qatar, this would do away with the need to turn its N.G. into L.N.G., in turn producing savings of \$2/mmbtu or more, reducing L.N.G. plants' huge maintenance requirements, and providing a stable source of demand for its product. In return, it could invest in the numerous Saudi chemical companies.

“Truly open borders for products and investments in the G.C.C. could catalyze major growth.”

This would create more N.G. demand while simultaneously assisting Saudi develop its burgeoning industrial companies. Truly open borders for products and investments in the G.C.C. could catalyze major growth for both countries, while also making them less dependent on the vagaries of global commodity markets.

Just like cooperation between Morocco and Algeria could make the two countries economic powerhouses through the capitalization of their respective natural advantages, Qatari-Saudi cooperation could make both countries competitive with chemical juggernauts like Germany's B.A.S.F. or the United States' Dow Chemical Company. Yet, such course can only happen if basic issues of sovereignty are resolved. On the other hand, the benefit of cooperation could rapidly build trust between parties, thereby achieving what thousands of meetings and promises at the G.C.C. have not.

3. G.C.C.-IRAN

Perhaps the most difficult challenge is developing cooperation between the Arab Gulf states and Iran. The burden of bad blood between Saudi Arabia and the Islamic Republic is difficult to overcome. Both states fear isolation, and until the Joint Comprehensive Plan of Action, the Iranians felt isolated and surrounded by enemies seeking to overthrow their regime. As of January 2016, though, it seems that the shoe has found itself on the other foot. Saudi Arabia talks and acts as if it were isolated and left alone to face wolves from across the Gulf in Tehran.

Saudi Arabia's present perception of an Iranian threat, and Iran's past, yet similar, feeling, could perhaps be alleviated through economic cooperation. Had all the Gulf powers worked together to develop their economies, they could by now be world-scale industrial powers. A parallel can be drawn with the extremely bloody confrontations between France and Germany in the 19th and 20th centuries which ended with a seemingly pedestrian agreement on coal and steel exchanges. This agreement evolved into the European Union and vastly enriched France, Germany, and the countries around them. No doubt after the bloodletting of World War II, the French and German political leadership made the decision to use economic cooperation to bring the people together. It could be similar

“Had all the Gulf powers worked together to develop their economies, they could by now be world-scale industrial powers.”

in the Gulf. Iran and the Gulf states have much they could cooperate on. For example, just as Qatar can sell gas to Saudi Arabia, Iran could sell gas to the U.A.E., Oman, Kuwait, Iraq, and even

Saudi Arabia. In turn, the Gulf states could invest in manufacturing facilities in Iran, import Persian agricultural products instead of importing them at a steep cost from afar, and join efforts in building more advanced chemical, fertilizer, and metal processing facilities. As has been shown, the economic slate is large and could be successful, especially considering that the Gulf neighbors enjoy a combined market of over 120 million consumers and are close to the huge markets of South Asia and the Far East.

Oman has already seen this potential for cooperation. It stands ready to sign an agreement with Iran to import Iranian N.G. for its industrial development in Sohar and other areas of the country. This would require some major investments in an underwater pipeline from the Iranian coast to Oman, which, while technically difficult, is by no means impossible. By

“Iran and the Gulf states have much they could cooperate on.”

the same token, the U.A.E. could also relatively easily start importing N.G. from Iran. In fact, pipelines from Iran to Sharjah’s sea border, and from the sea border to the coast of Sharjah, already exist. All it would technically require is to verify and hook up the lines to start the flow. Nevertheless, these few meters of hook-up require political will on both ends of the pipeline, which may or may not be present and could potentially be complicated by the nature of the U.A.E.’s domestic politics, where one emirate does not always agree with another on how to benefit from foreign cooperation.

CONCLUSION

Cooperation in energy implies cooperation in modernization of economies, including joint ventures in chemicals, fertilizers, aluminum, and other metals. All these downstream productions will allow the Gulf to decrease its primary function as a mere fuel reservoir for Europe or China. It would also create jobs and stable wealth based on value-added production rather than mere extraction. Nevertheless, it may be the sad conclusion that such cooperation can only happen after disasters similar to those of 1914-1918 or 1939-1945 in Europe and Asia: disasters which, while ultimately fostering the roots of cooperation, cost tens of millions of lives, destroyed entire countries and societies, and continue to leave an imprint.

This kind of catastrophe is not necessary. If leaders, possessing traits similar to those of the late Saudi King Abdullah or the present Iranian President Hassan Rouhani, have a will to bring people together, separate from extreme ideologies, the sphere of economics and commerce provides a relatively fast and beneficial opportunity to do so. Both sides of the Gulf have vast energy resources that are

disparate enough to lead to cooperation. The Saudis have crude oil, the Iranians natural gas. The Saudis have capital and know-how in chemicals, fertilizers, and metals, the Iranians have knowledge of other chemicals and fertilizers and a large educated work force. Clearly, some of the basics for cooperation are already present. Now all that is needed are leaders of vision and good will from across the Gulf to recognize these resources for the opportunity they truly are. Similar conclusions can be drawn in the rest of the Middle East. A potential Moroccan-Algerian economic cooperation could boost the economy of both countries, employ masses of their unemployed, and bring hope to the Sahrawi conundrum. Better use of available skills and labor from Egypt in the Gulf market would bring sorely needed remittances from the oil-rich Gulf to the Egyptian economy. Altogether, it appears that economic cooperation between Middle Eastern countries would bring about major benefits to all their citizens. However, such cooperation requires leaders with a vision that goes beyond ideological and historical barriers to focus on the future of their countries and the youth, who are the true wealth of the region.

ENDNOTES

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ABOUT THE AUTHOR

Jean-François Seznec specializes in energy, trade, and industrialization in the Gulf region. He has over two decades of experience in international banking and finance. He spent ten years in the Middle East, including two years in Riyadh at the Saudi Industrial Development Fund and six years in Bahrain covering Saudi Arabia. Dr. Seznec is a founding member and managing partner of the Lafayette Group L.L.C. and a senior advisor to the Petroleum Finance Company.

Seznec is currently a Visiting Associate Professor at Georgetown University's Center for Contemporary Arab Studies. His research centers on the influence of political and social variables on the financial and oil markets in the region. He is particularly interested in the growth of the petrochemical industry in the Gulf.

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