Extract late
March 2020
Dr Carole Nakhle, Chief Executive Officer (CEO) of Crystol Energy:
Focus on Eastern Mediterranean Oil & Gas
The Extractives Hub team is delighted to lead this issue of the Extract with the below interview with renowned Energy Economist and CEO of Crystol Energy, Dr. Carole Nakhle.

Additionally, please see the next item issue of this Extract – Dr. Nakhle is also delivering an Extractives Hub on the 2nd April: "Host governments and oil companies relationship in today’s market conditions".

Below follows the full interview with Dr. Nakhle:

1. **How exciting is the eastern Mediterranean petroleum story for international investors and the individual countries themselves?**

Since 2009, the interest in East Mediterranean offshore oil and gas potential has followed a cycle from widespread excitement, to a stall in activity, to disappointment, and back to excitement again. The region witnessed the highest level of excitement towards the beginning of the last decade because of several developments mainly: 1. Israel made what was then some of the
biggest offshore gas discoveries in the world (Tamar and Leviathan) and 2. Around the same time, the USGS published a study about the oil and gas potential of the region, citing “volumes of mean undiscovered technically recoverable resources: 1.7 bnbl oil and NGLs, and 122 tcf gas”. Note, however, that the same report concludes by saying ‘No attempt was made to estimate economically recoverable resources’ which has been largely overlooked.

But enthusiasm soon dampened because of various global, regional and local developments. The US shale revolution, which became more prevalent post 2010, drastically changed global energy markets: from a world of scarcity (and the peak oil theory) to a world of plenty, thereby putting downward pressure on oil and gas prices, and intensifying competition among existing and potential producers. Regionally, maritime borders disputes between Cyprus and Turkey as well as between Lebanon and Israel (which are still officially at war with each other) created serious hurdles to various export options. Locally, political and regulatory uncertainties (e.g. Lebanon, Israel) caused further delays to the exploitation of the region’s resources. The discovery of giant Zohr field in Egypt and its unique fast development revived interest in the region.

For countries like Cyprus and particularly Lebanon, developing a completely new industry and potentially a lucrative sector can transform the economy, for better or worse depending on how the sector is governed and potential revenues are managed. In Lebanon, the risk of the resource curse which has blighted many developing countries is real, given existing circumstances.

2. **To date are the eastern Mediterranean petroleum finds more about natural gas than oil?**

Indeed, the region’s gas potential has been confirmed, and to date mostly in Israel with early discoveries dating back to 1999 albeit at a small scale. Cyprus
made its first discovery – the Aphrodite field – in 2011, which is yet to be developed. More recently, the island made other discoveries including Eni and Total's Calypso 1 in Block 6, in 2018, then in 2019, ExxonMobil and its partner QP announced a ‘giant discovery’ in Block 10 which is adjacent to Block 6 and within proximity to the Egyptian borders, particularly the Zohr field. BG announced the discovery of Gaza Marine in the waters of the Palestinian Authorities in 1999. Before the civil war started in 2011, Syria was a small oil and gas producer but further exploration plans have been put on hold since. Lebanon is yet to make any discovery; Total is carrying out exploration activity this year and results are expected in summer 2020. Note that offshore gas discoveries are typically more challenging to develop and bring on stream than oil discoveries, and this explains why although many discoveries have been made in Eastern Mediterranean over the last 10 years, the region is yet to convert those discoveries into substantial exports.

3. **Is the eastern Mediterranean a solution for European countries across the continent seeking to diversify their source of natural gas? For which natural gas-importing European countries is this the most significant opportunity?**

The diversification of energy supplies is highly politicised in Europe – particularly related to natural gas. The European Commission has made security of supply an explicit policy objective, which ‘includes identifying and building new routes that decrease the dependence of EU countries on a single supplier of natural gas and other energy resources’. The ‘single supplier’ is considered to be Russia. The EU has been pursuing different options to reduce that dependence, including the promotion of LNG from new players such as the US (thanks to the shale revolution), as well as the traditional suppliers, such as Qatar.

The EU is also watching closely developments in Eastern Mediterranean
which can also contribute to reducing the EU’s dependence on Russian gas. Priority has been placed on the creation of a Mediterranean hub, which could involve gas flows to Europe via Turkey. However, the political intricacies of the region add to the commercial and technical challenges of bringing Eastern Mediterranean gas to Europe, especially if by pipeline. As things stand, it is unlikely that such a hub would include all the players in the region; remember: Lebanon and Israel are still officially at war with each other, while Turkey recognises the northern Turkish Cypriot government and does not have diplomatic relations with the internationally recognised government of Cyprus.

4. The eastern Mediterranean is replete with contested maritime boundaries, is the fact of this contestation a major drag on upstream petroleum development, or are these countries managing to reach agreement on shared offshore extraction without prejudice to whatever final agreement on those boundaries might be reached in the future?

Maritime boundary disputes are common. Some can take decades to be resolved; for instance, it took Norway and Russia more than 30 years to solve their dispute in the Barents Sea. Defining maritime borders is not a prerequisite for holding a licencing round, as we have seen for instance in Lebanon. However, such unresolved issues can cause significant uncertainties and can distort investment decision in the blocks which fall in the contested area. In 2018, for instance, Turkey sent its military to stop Eni from drilling offshore Cyprus, because of contested maritime boundaries.

Furthermore, when the disputes are between two parties which are still officially at war with each other – Lebanon and Israel – the situation becomes even more peculiar. Note that the Lebanese Government does not recognise that there is any disputed area, and has divided its offshore area into ten blocks, ranging between 1,500 and 2,500km2, covering what Israel claims to
be a disputed area of 854 km². I wonder what will happen if Total and its partners make a discovery in Block 9 which falls in that area, especially if it is close to Israeli borderline.

5. **To what degree is the economic viability of eastern Mediterranean gas finds vulnerable to falling prices for natural gas recently experienced in continental Europe and elsewhere, or are individual projects insulated from international price volatility through supply to largely or exclusively domestic markets?**

Most of the companies carrying out activities in Eastern Mediterranean are major oil and gas companies, which are affected by developments in global markets including oil prices. The current oil price environment is not conducive for investment in risky and higher cost ventures. What we typically see when prices fall is a reduction in capital expenditures of these companies as they become more selective in the allocation of their more constrained capital.

Of course, Eastern Mediterranean countries can and should give priority to developing their domestic market especially countries like Lebanon and Cyprus which rely on imports of oil products to generate electricity and Lebanon suffers chronic power shortage. However, it is argued that the domestic market, even when fully developed, would be too small to absorb potential production and exports are therefore inevitable. In this respect, developments in potential export markets will play a major role in shaping investors’ plans. For instance, in Europe competition among traditional and new suppliers as well as between LNG and pipeline gas has intensified in recent years, courtesy of the shale revolution in the US to the benefit of the European consumer. And the question that needs to be addressed, in this case, is: how competitive will Eastern Mediterranean gas supplies be in the European market? The answer depends on both the new/future exporters and the incumbents.
About Dr Carole Nakhle: alongside her role as CEO of Crystol Energy, Dr Nakhle is active on the Governing Board of the Natural Resource Governance Institute and Member of its Audit and Finance Committee, and Advisory Board of the Payne Institute at the Colorado School of Mines. She is a program advisor to the Washington based International Tax and Investment Centre, and regular contributor to Geopolitical Intelligence Services and the Executive Sessions on the Political Economy of Extractive Industries at Columbia University in New York. She is a non-Resident Scholar at the Carnegie Middle East Centre and a Fellow at the Lebanese Centre for Policy Studies. She is also involved in the OECD Policy Dialogue on Natural Resource-based Development and lectures at the Blavatnik School of Government at Oxford University, University of Surrey in the UK, and Saint Joseph University in Beirut.

Writing exclusively for the Extract, Kennedy Chege, University of Cape Town: "Designing Local Content Frameworks in the Oil, Gas & Mining sectors in Africa: Principles & Guidelines"
The term local content comprises two pillars: local procurement and capacity building. Local content can be described as the socio-economic value that is derived by host nations pursuant to the exploitation of oil, gas and other natural resources within their jurisdiction. The socio-economic value is manifested through the creation of jobs, promotion of business development, procuring machinery and other material from local companies, encouraging technology transfers and stimulating innovation in local economies, among others.

The term “resource curse” refers to a situation whereby countries that have an abundance of natural resources such as oil, gas and minerals are associated with inter alia: slow economic growth and development, poverty, political instability, conflicts with communities and rampant corruption. This phenomenon is prevalent in developing countries, mostly in Africa, that despite possessing large deposits of natural resources, may derive the least benefit from them.
It is in light of the above that many African countries like Kenya, have placed developing and reforming pre-existing local content policies among the top priorities for policy development. Similarly, in South Africa, owing to its peculiar history of apartheid, socio-economic transformation and redress of past injustices and discrimination has been high on the political agenda since the advent of the Constitution of 1996. Hence, local content in South Africa is viewed from the lens of socio-economic empowerment, promoting equity and redress, targeted specifically at a section of the population that the law terms as Historically Disadvantaged South Africans (“HDSAs”). Other countries such as Angola, Ghana and Nigeria have also either developed or are currently developing local content frameworks as strategic economic and socio-political instruments to address their specific challenges, with the aim of increasing the benefits from their oil, gas and mining sectors.

If properly formulated and implemented, local content policies could be leveraged to enhance long term economic growth and development in developing countries, and to ensure that the added socio-economic value remains within the country. The unique context of each country is a major factor that influences the design and implementation of local content policies.

There are several general principles/ guidelines that could assist in the design of local content frameworks to allow countries to derive value through local content policies. These include the following:

- Local content policies must be clear and specific about what they aim to achieve for the country and responsibilities must be properly allocated- Different stakeholders must be able to understand the priorities of the government of the host country, and their responsibilities.
- Local content objectives must be both realistic and attainable within a specific period; to hold the stakeholders accountable.
- Polices must be flexible to changing circumstances and priorities. They must also have a long-term vision to transcend political cycles.
- They must be predictable; frequent changes to regulations could have adverse effects for companies by creating uncertainty.
- Procurement rules and regulations must be transparent.
- Policies should incentivise investors to invest in the extractives industries for economic growth and development of the country.
- They must be designed to contain mandatory minimum thresholds, for example provisions compelling mining companies to source a portion of their inputs from local suppliers, and domestic employment requirements to force them to employ a percentage of labour from amongst the local population.
- Local content policies must incorporate mandatory monitoring and enforcement mechanisms, for example through the establishment of independent government institutions.

About Kennedy Chege: Kennedy is a PhD Law student at the University of Cape Town (UCT) and researcher with the DST/NRF SARChI: Mineral Law in Africa (MLiA) Research Chair. Kennedy’s PhD research relates to Mining law (with particular focus on Oil and Gas law), incorporating aspects of Competition/ Anti-Trust law, under the supervision of the distinguished Professor Hanri Mostert (MLiA Research Chair) and Dr. Katharine Kemp (Senior Lecturer, University of New South Wales, Sydney, Australia). The focus of his PhD research is on confronting the impact of cartel behaviour on the global petroleum industry. The dissertation conducts a comparative analysis of South Africa, Norway and the USA. His dissertation investigates the extent of cartel behaviour by corporations in the petroleum industry and how it stifles the growth and development of the industry. Additionally, it assesses the ways that the laws in the countries under study deal with cartel behaviour. Lastly, the thesis investigates some of the challenges that countries face when implementing/ enforcing competition laws, specifically to restrict the operation of cartels in the petroleum industry.
Full details regarding these webinars are available [HERE](https://extractiveshub.org/webinars).

**Forthcoming Webinars April 2020**

**Webinar**

**Title:** Host governments and oil companies' relationship in today’s market conditions and trends

**Date:** Thursday 2nd April/ 13:00-13:45 UK time

**Key Issues to be addressed:**

1. Fiscal regime and stabilization in the oil and gas sector
2. General developments in oil markets
3. How oil markets impact the industry/host governments
4. Financial impact of oil markets on the energy transitions
5. The evolving relationship between OPEC and IOCs

**Presenter:** Dr Carole Nakhle  
Chief Executive Officer  
Crystal Energy

**Moderator:** Dr Victoria Nalule  
Research Fellow, Extractives Hub  
CEO at AEMI

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**Webinar**

**Title:** Electrification in the Energy Transition

**Date:** Thursday, 9th April: 14:00-15:00 UK time

**Key Issues to be addressed:**

1. Economic development and access to electricity
2. Electricity and the energy transition
3. Pricing carbon
4. Electricity storage and market design

**Presenter:** Dr. Rafael Macatanga  
Lecturer, CEPMLP  
University of Dundee

**Moderator:** Athelia Grasco Kvorah  
MSc Student CEPLMP  
University of Dundee

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