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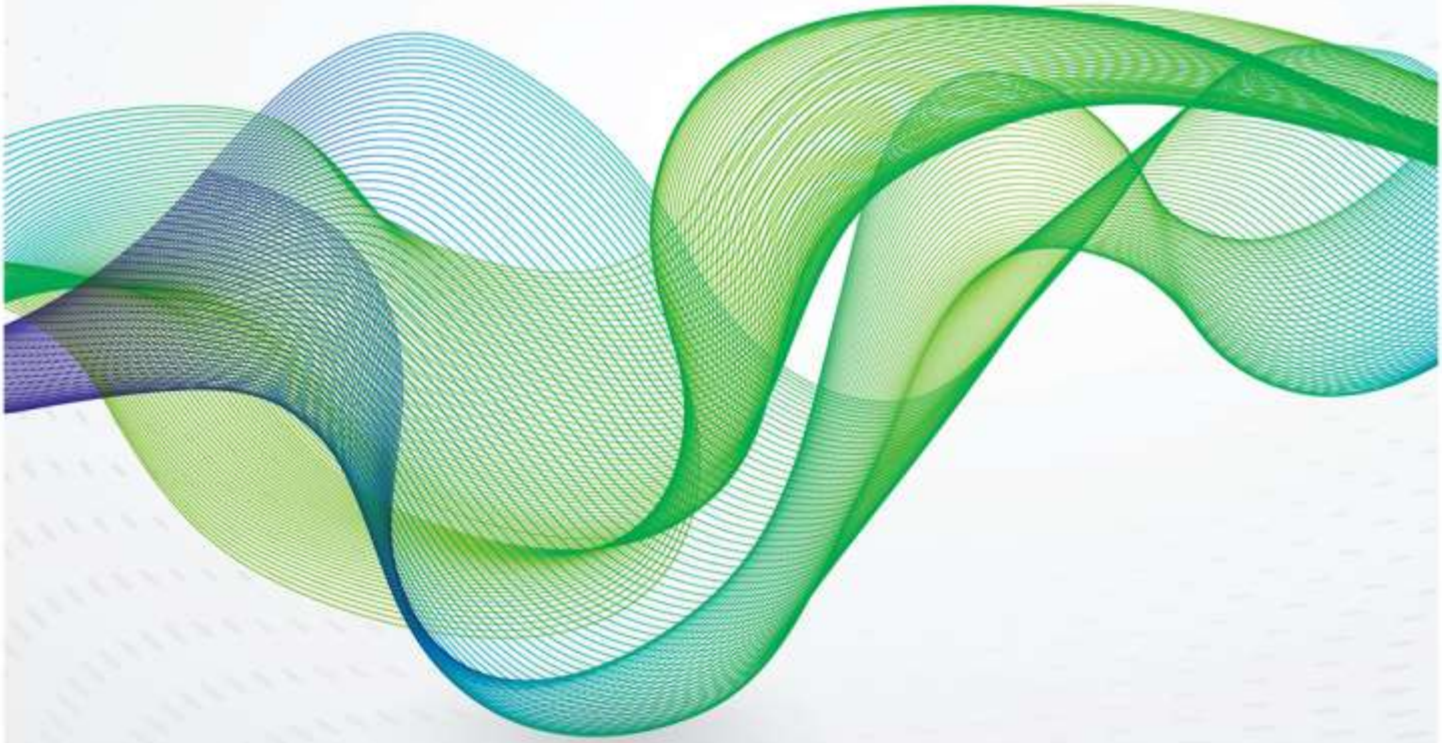
# Oil and Gas in a New Libyan Era:
## Conflict and Continuity



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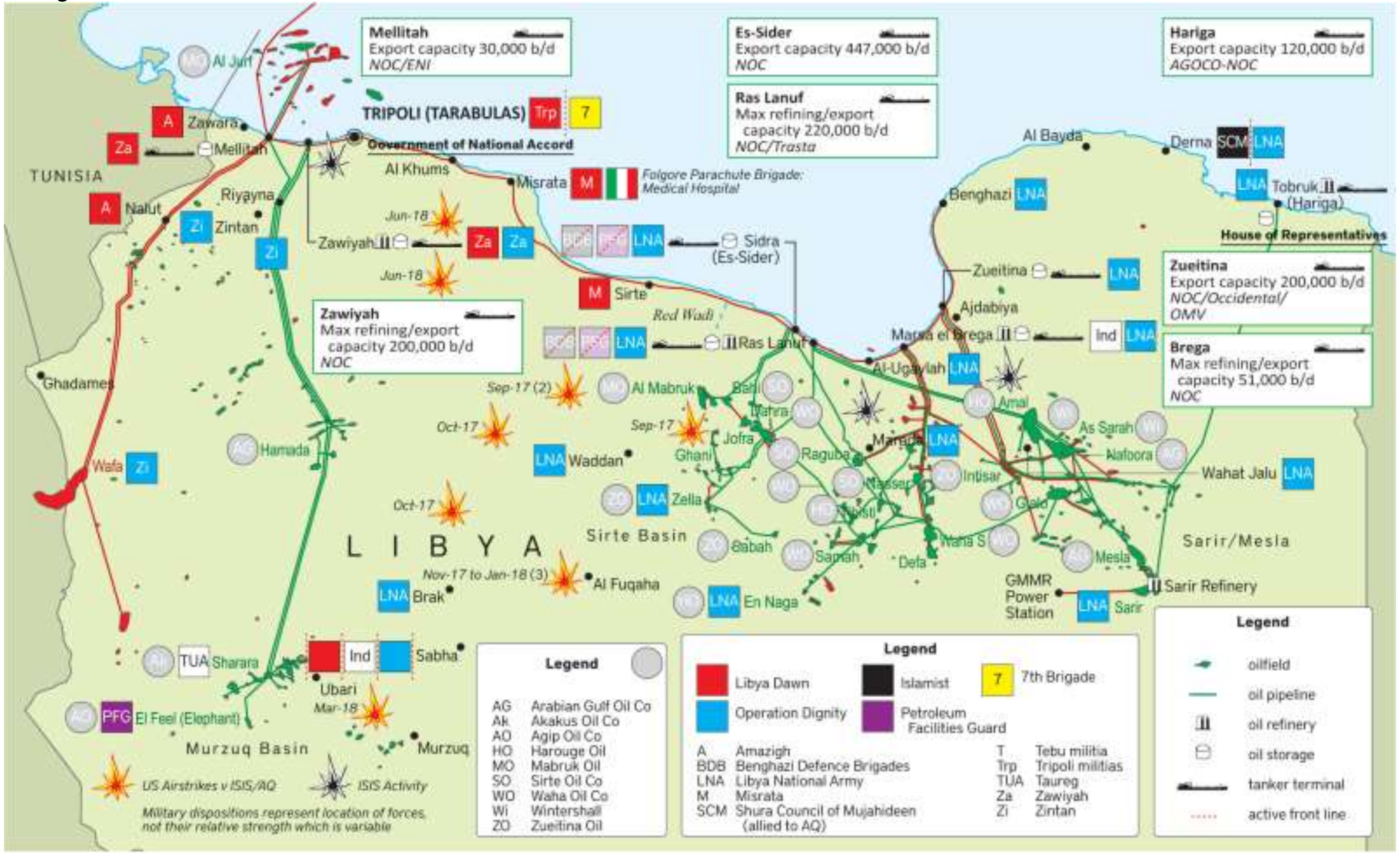



Source: Petroleum Economist, Chris Stephen

## Executive summary

This paper analyses the political economy of oil and gas in Libya, examining how the country's politics affect the oil and gas industry, and the implications and outlook for the future.

### Oil and gas pre- and post-2011

Since independence in 1951, Libya has passed through sharply contrasting periods of politics, each of which has shaped the oil and gas industry. Having developed initially when the country was still a monarchy, between the 1970s and 2000s Libya's oil and gas industry developed a conventional array of structures, companies, and operators, presided over by the National Oil Corporation (NOC). Then, after the relative stability and growth of the 2000s, the period which began in 2011 with the revolution that overthrew Muammar Qadhafi, brought major disruptions and difficulties for the oil and gas sector.

At first, during 2011 and subsequently, the main disruptor of oil and gas activities was insecurity – comprising armed conflict and criminal violence. The insecurity was mostly a general feature of Libya as the national government (first the interim government which took office in late 2011 after the overthrow of Qadhafi, and then the elected government which took office in July 2012) and local authorities all failed to bring about the demobilization of militias and the establishment of unified security forces.

In time, local struggles for physical control of oil facilities became overlaid with, and shaped by, competition between the rival would-be national governments which emerged after mid-2014. This political struggle caused difficulties for the oil industry, in particular for the NOC. Notably, between 2014 and 2017, the rival authorities competing to be Libya's national government repeatedly fought for formal control of the NOC.

Inevitably, the combination of insecurity and political competition for control of the oil sector had consequences for output and investment. Initially, oil production recovered in late 2011, enabling output to return to around 1.5 million barrels per day (mb/d) in 2012, before it began to decline again. Fighting and insecurity caused a range of stoppages and disruptions in the oilfields and at export terminals, and oil production fell to averages of less than 500,000 barrels per day (b/d) in 2014–16, and lows of as little as 200,000 b/d.

From late 2016 the trend in output turned, thanks to tentative improvements in oil cooperation between the NOC, the rival governments in Tripoli and the east, and associated armed forces. In December 2017 output reached nearly 1 mb/d and an average of some 865,000 b/d in 2017 – the best since 2013, but still only half the pre-2011 production average.

### Continuities and changes

In the years after 2011, and especially after the split in government in 2014, political turbulence and insecurity brought changes to Libya's oil sector. However, there were also significant continuities in the approaches of both the NOC and the Libyan authorities to oil and gas sector management and development.

In general, the NOC and its subsidiaries sought to maintain steady relations with each other, despite the security difficulties faced, in particular, by subsidiaries operating in the Gulf of Sirte. Meetings between the NOC, subsidiaries, and joint venture companies were frequent and routine, and companies continued to provide a wide range of benefits to their staff, maintaining the practices and habits of Libya's public sector. At the same time, Libyan oil companies sought to cooperate as well as they could with the various political and military forces competing for control of them.

Foreign companies responded to the changed situation in Libya in varying ways, according to their priorities and to the way in which their operations had been affected by the troubles. Some companies looked to exit the country, others to hold their positions, and a few took opportunities to agree new deals and investments.

As well as actively courting the return of foreign companies, the NOC sometimes asserted itself regarding major decisions by foreign companies, as it had done in the past, before 2011.

## What next?

Looking back at the periods before and since 2011, and thinking ahead to the coming years, two factors look likely to continue to be particularly significant for outcomes and prospects in Libya's oil and gas sector. Those factors are the degree of stability in the NOC and the sector in general, and the role of individuals or personalities, for better and for worse. Intertwined with these institutional and personal factors is the issue of local and national groups seeking to benefit financially by controlling infrastructure on the ground.

Libya's oil and gas companies have been resilient, despite the disruptions caused by revolutionary change, fighting, and insecurity, and despite the reduced presence and activity of foreign companies. The NOC and its subsidiaries have been relatively stable, especially when contrasted with the country's government or would-be governments. At the same time certain individuals and the roles they have played have affected the sector – from the capricious influence of Qadhafi, through to the positive influence of NOC chairman Mustafa Sanalla.

Overall, in the post-2011 era, the NOC and the oil sector have presented something of a paradox: insecurity and conflict have had a major impact on oil infrastructure, production, and exports; but the NOC and other companies have, to some extent, remained above, and protected from, the political disorder. Local actors and national rivals have sometimes fought to control oilfields, pipelines, or terminals, usually for the sake of direct or indirect financial benefit; but in the longer run, they have sought co-operation with the NOC and the continuation, or resumption, of production and exports.

These dynamics are likely to continue for as long as the rift over national government is not resolved and while Libya lacks unified armed forces. This will not prevent investment in oil and gas in the next five years, but it is likely to constrain it, albeit not as severely as during much of 2011–18.

## Introduction

This paper analyses the political economy of oil and gas in Libya, examining how the country's politics affect the oil and gas industry, what has and has not changed since 2011, and the implications and outlook for the future.

The subject is relevant particularly to international oil and gas companies operating, or considering operating, in Libya. Such companies have good reason to want to understand how insecurity, conflict, and contested national governance in Libya affect the country's oil and gas industry, and how they affect the outlook over the near to medium term – the next two to five years, say. By the same token, the subject may be of interest also to policymakers from Europe, the USA, and elsewhere, who wish to understand these dynamics and the implications for policy and engagement with governing authorities in Libya.

Since the revolution in Libya in 2011, much has been written about the events of that year, and about political and security issues since then, but little has been written about the impact of politics on the oil and gas sector. However, the process of reflecting on what has happened since 2011 can help with the task of anticipating what may happen in the years ahead. It is, moreover, important to understand what has changed in Libya and what continuities there are in the political economy surrounding oil – for example in dynamics around the National Oil Corporation (NOC).

Researching and analysing how politics, conflict, and insecurity affect oil and gas in Libya is not straightforward. Insecurity in Libya, a tendency among Libyan authorities and companies to regard all oil matters as confidential, and the related difficulty of accessing reliable information and data all make it difficult to obtain primary sources (such as company reports and data) and to interview officials and other persons with direct involvement in the industry in Libya. This paper is therefore informed primarily by a combination of publicly available sources (including from oil and gas companies, and media reports), some academic literature on the country, and the author's past analytical writing and experience in the country, including in the 2000s, after 2011, and in 2017.

The paper begins by briefly reviewing the history of oil and gas development in Libya before 2011. It then proceeds to examine what has happened in the latest, contrasting, period from 2011 to 2018, focusing on how insecurity and political division (in particular the existence of rival governments) have affected the sector, and identifying what the biggest continuities and changes have been. The paper then considers how stability in the NOC and the role of individuals have been, and continue to be, significant for outcomes and prospects, and how competition from local actors seeking oil benefits is intertwined with ongoing dynamics. Finally, the implications for Libya's future are considered.

## 1. Libya's oil and gas: background

The ways in which politics and security affect the oil and gas industry in Libya today cannot be understood fully without looking back to the evolution of Libyan politics since independence in 1951. Across this span of time, the country has experienced three sharply contrasting periods of rule and politics:

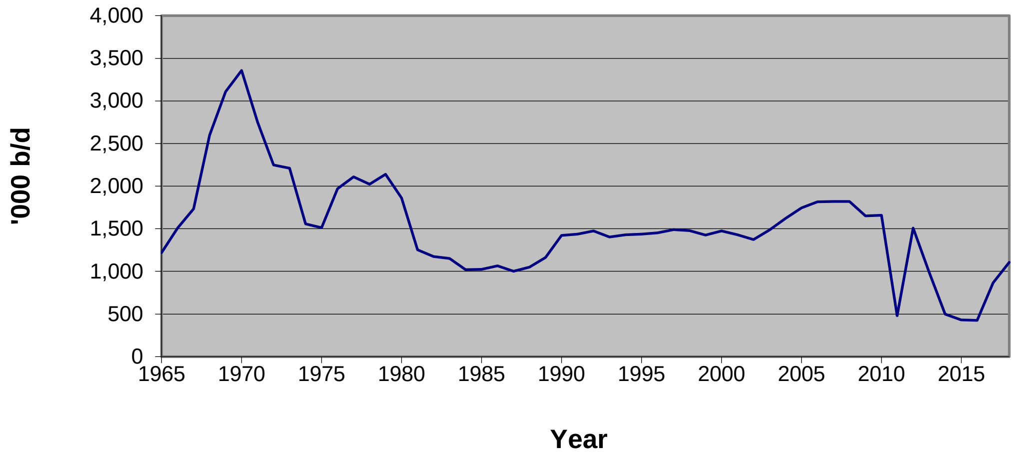
1. from 1951 to 1969 and the arrival of Colonel Muammar Qadhafi in power;
2. the 42 years of Qadhafi's rule, from 1969 to 2011;
3. the period since Qadhafi's overthrow in 2011 (in the '17th February revolution' as many Libyans call it) through to the present.

Each of these periods has seen policies and political developments which have shaped the oil and gas industry – sometimes intentionally, at other times unintentionally. One constant (if it can be called so) is that, due to unusual features of its politics and governance, Libya has been an idiosyncratic context for the oil and gas industry across this span of time. These idiosyncrasies were especially marked under Qadhafi, but have also been in evidence since then.

When oil was first discovered, in 1959, and first exported, in 1961, Libya was a young monarchy with, initially, a federal system and then a unified government which was open to foreign investment. Over this first decade, the country's oil industry and infrastructure developed rapidly, with key oilfields lying in the sparsely populated interior, and pipelines running north to export terminals and refineries on the coast of the Gulf of Sirte, and later to Zawia (in the west) and Tobruk (in the east).

After the army coup in 1969 that brought Qadhafi to power, Libya was largely governed as a dictatorship, with an eccentric formal political system – that of the *jamahiriyya*, or 'state of the masses', set out in the 1975 Green Book. During this second period, the oil industry both prospered and suffered. The early 1970s saw a wave of nationalizations, as the state took majority stakes in most of the local holdings of foreign companies. This contributed to a decline in production, from a peak of nearly 3 mb/d in 1970, to a low of around 1 mb/d in the early 1980s and an average of around 1.5 mb/d. In the 1980s and 1990s, Western oil companies were affected by the prolonged crisis in relations between Libya and Western countries, which had resulted from ideological policies under Qadhafi and alleged Libyan involvement in international terrorist attacks. For the most part, it was not until the early 2000s, when UN and US sanctions were lifted from Libya, that major Western oil companies were either able or willing to resume direct operations in Libya. After this, foreign investment in oil and gas accelerated.

**Figure 1: Average daily oil output, 1965–2018**




Source: BP Statistical Review of World Energy, 2018; and NOC

As in other countries, the rapid growth of an oil industry made Libya a distributive or rentier state. What was unusual, however, was that the industry's growth contributed to the building of state institutions and processes, even as the country's rulers were reluctant to embrace conventional ideas of statehood.[1] That reluctance was a peculiarity of Qadhafi's political ideologies, combined with Libya's limited history and experience of state institutions in the modern era (in comparison with its North African neighbours, for example). All the same, desire for foreign investment was a constant, even during the many years of turbulence in Libya's relations (under Qadhafi) with the West. For example, from 1986 to 2005 the NOC preserved the concessions and rights owned by the Oasis

[1] On these themes, see for example Dirk Vandewalle, *Libya since independence: Oil and state-building*, IB Tauris, London, 1998; and John Davis, *Libyan politics: Tribe and revolution*, IB Tauris, London, 1987.

consortium of US oil companies (Amerada Hess, Conoco, and Marathon) while they were prohibited from operating in Libya by US sanctions. And in the early 2000s, following Libya's international rehabilitation, the government pushed for new international investment in oil and gas, conducting new licensing rounds, agreeing licences with many foreign oil companies that were new to Libya (for example CNPC, ONGC of India, Petrobras, Statoil, and Woodside Petroleum), and launching plans for wider economic reform.[2]

As a result of such opportunities and policies between the 1970s and 2000s, Libya's oil and gas industry developed a conventional array of structures, companies, and operators. These included:[3]

- the state-owned NOC (the supreme national oil company);
- affiliated NOC companies such as the Arabian Gulf Oil Company (AGOCO), Brega Petroleum Marketing, the Ras Lanuf Oil and Gas Processing Company, the Sirte Oil Company, and the Zawia Oil Refining Company (all of them also state owned);
- joint Libyan-foreign ventures such as Akakus Oil Operations, Mabruk Oil Operations, Mellitah Oil and Gas, Waha Oil Company, and Zueitina Oil Company;
- foreign companies either exploring and operating within a joint venture company (under an exploration and production sharing agreement), or just exploring or holding a licence for exploration.

In the 2000s and up to 2011, foreign oil companies operating or holding a licence in Libya included BP, Chevron, CNPC, Eni, Marathon, Occidental, OMV, Repsol, Shell, Statoil, Total, and Wintershall.

[2] Industrial developments in Libya's post-2003 international rehabilitation period were analysed in few scholarly articles at the time, and otherwise in industry and media reports. For an example of the former, see Ronald Bruce St John, 'Libya's oil and gas industry: Blending old and new', *Journal of North African Studies*, vol. 12, 2007, no. 2, pp. 203–18.

[3] For an overview of companies and operators, see 'Oil Sector Directory', NOC Media Office, 2014; and 'Libya oil almanac: An OpenOil reference guide', pp. 48–132. Mabruk Oil Operations is also sometimes referred to as the Mabruk Oil Company.

**Table 1: NOC affiliates and joint ventures**

| | |
|---|---|
| ***Affiliated NOC companies (fully owned by NOC)*** | |
| | **Arabian Gulf Oil Company (AGOCO)** |
| | **Brega Petroleum Marketing** |
| | **Jowfe Oil Technology** |
| | **National Drilling and Workover Company** |
| | **North African Geophysical** |
| | **Petro Air** |
| | **Ras Lanuf Oil and Gas Processing Company** |
| | **Sirte Oil Company** |
| | **Taknia Libya Engineering** |
| | **Zawia Oil Refining Company** |
| ***Joint venture companies (NOC–foreign)*** | |
| | **Akakus Oil Operations** |
| | **Harouge Oil Operations** |
| | **Libyan Emirates Refining Company** |
| | **Mabruk Oil Operations** |
| | **Mellitah Oil and Gas** |
| | **Nafusa Oil Operations** |
| | **Waha Oil Company** |
| | **Zueitina Oil Company** |

Source: NOC Oil Sector Directory.

Along with the development of these structures and companies, care was generally taken to protect Libya's national oil institutions and infrastructure from the worst of the domestic political turbulence and hazards to which the country was often subject. One example of a hazard was involvement from the Qadhafi family itself. In the 2000s, the NOC was kept out of the hands of Qadhafi's children who, as they reached adulthood, were given increasing powers and sinecures such as running the sovereign wealth fund, the national telecoms company, or national security institutions. Another such hazard was the risk of influential political figures seeking to direct oil policy and the NOC away from cooperation with foreign companies. Inevitably the leadership of the NOC (in particular the position of chairman) was subject to periodic changes, and at times other national institutions for oil and gas were created. Some of these changes were shaped by rivalry between senior government figures and a desire to exert control over the oil and gas sector. But none of those who ran the NOC during this time made radical changes to it, and none of the newly created institutions succeeded in eclipsing the NOC itself.

In 2006, for example, a Council for Oil and Gas Affairs was created, and in 2009 this was replaced by a Supreme Council of Energy Affairs, chaired by the secretary of the General People's Committee (effectively prime minister), Baghdadi al-Mahmudi.[4] A seat on this council was allocated to the head of the (then) newly established National Security Council, who was one of Qadhafi's sons.[5] However, neither of these oil and gas councils impinged disruptively on the NOC or on exploration and production trends. Individuals who favoured foreign investment were kept in influential roles; one such example was Shukri Ghanem who was prime minister from 2003 to 2006, then head of the NOC from 2006 to 2011, and who was seen as a strong proponent of economic reform and attracting foreign investment.[6]

Care, therefore, was generally given to protecting how the NOC and the oil sector were led, and by whom. This contributed significantly to the success of Libya's oil and gas operations in largely weathering the numerous difficulties in the country's foreign relations between the 1980s and the early 2000s. These difficulties were exemplified by US and UN sanctions, the suspension of diplomatic relations with some countries (such as the USA and Britain), and accusations of Libyan state involvement in international terrorist incidents.

**Table 2: Selected chronology**

| | |
|---|---|
| **1951** | **Libya's independence** |
| **1959** | **First oil discovery in Libya** |
| **1961** | **First Libyan oil exports** |
| **1969** | **Colonel Muammar Qadhafi comes to power** |
| **1970** | **The NOC is established, replacing the Libyan Petroleum Company (Lipetco)** |
| **1973** | **Libya nationalizes 51% of foreign oil companies in the country** |
| **1977** | **General Congress (parliament) declares Libya a *jamahiriyya* ('state of the masses')** |
| **1982 and 1986** | **USA imposes economic sanctions on Libya** |
| **1991** | **USA and Britain indict Libya in connection with the 1988 Pan Am aircraft bombing over Lockerbie, Scotland** |
| **1999** | **UN Security Council suspends UN sanctions** |
| **2000** | **NOC puts 137 blocks out to tender** |
| **2003** | **UN Security Council lifts UN sanctions; Libya agrees Lockerbie compensation deal** |
| **2004** | **USA lifts its Libya sanctions, following Lockerbie compensation agreement** |

[4] In Qadhafi's *jamahiriyya* system, conventional terms such as president, prime minister, minister, parliament, and even government were not used, and political parties were prohibited. This idiosyncrasy, sustained over much of Qadhafi's 42-year rule, has had repercussions for efforts since 2011 to establish conventional systems of government. On this history of 'statelessness', see Davis, *Libyan politics* (1987), p. 19 and chapter 4.

[5] 'GPC endorses plan to set up Supreme Council for Energy Affairs in Libya', Libyaninvestment.com, 8 August 2009.

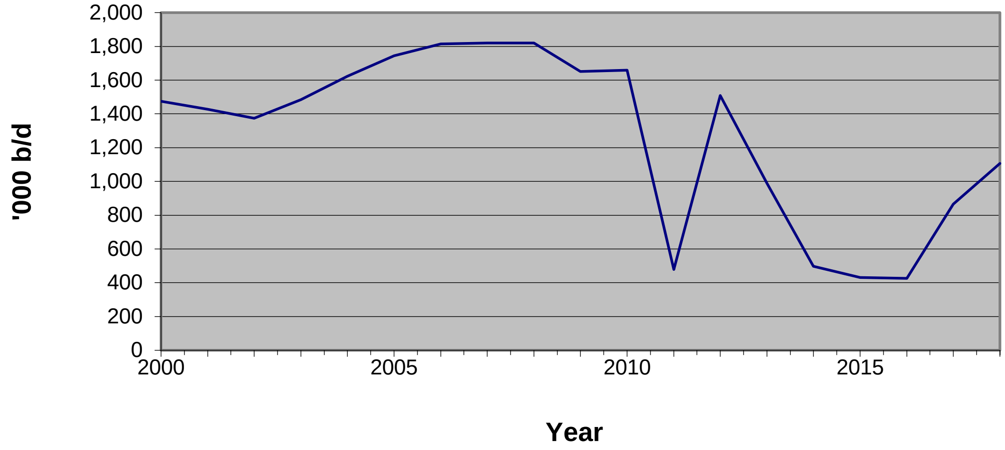
[6] 'Libya's reformist PM is ousted', *Financial Times*, 6 March 2006. Ghanem headed the NOC while Baghdadi al-Mahmudi was prime minister, both until 2011.

| | |
|---|---|
| **2004** | **West Libya Gas Project and Greenstream pipeline come on stream** |
| **2005** | **US companies secure 11 licences in new round of exploration and production licensing; Shell announces gas exploration agreement** |
| **May 2006** | **USA restores full diplomatic relations with Libya** |
| **Feb–Oct 2011** | **'17th February Revolution' leads to conflict and overthrow of Qadhafi** |
| **July 2012** | **First elections are held, and new transitional government takes office** |
| **May 2013** | **Parliament passes 'Political Isolation Law', barring the participation in government of people who held high office under Qadhafi** |
| **June 2014** | **Second elections are held; subsequent fighting and political crisis leads to emergence of rival governments in Tripoli and eastern Libya** |
| **Dec 2015** | **Libya Political Agreement is signed at Skhirat, Morocco** |
| **April 2016** | **Government of General National Accord (GNA) begins to establish itself in Tripoli** |
| **Jul 2017** | **Oil production exceeds 1 mb/d for first time since 2013** |
| **Mar 2018** | **Total buys out Marathon's share in the Waha oil concessions** |

Ultimately, two of the largest indicators of relative stability in the industry during the 2000s were increases in investment, exploration, and production by foreign companies, and a moderate increase in Libya's overall output of oil and gas. These increases were made possible in large part by the lifting of UN, and then US and European, sanctions. Between 2002 and 2007, oil output rose from 1.4 mb/d to 1.8 mb/d, and the average over the ten years 2001–2010 was around 1.64 mb/d compared with 1.45 mb/d during 1991–2000.[7] Examples of major oil and gas investment included the development of the Western Libya Gas Project and the construction in 2003–2004 of the associated 520 km Greenstream pipeline from Mellitah to Gela in Sicily, operated by a joint venture between Eni and the NOC. Thanks to these, Libya's gas production more than doubled during the 2000s, from an average of 6.0 bcm in 2000–2004 to 13.6 bcm in 2005–2010.

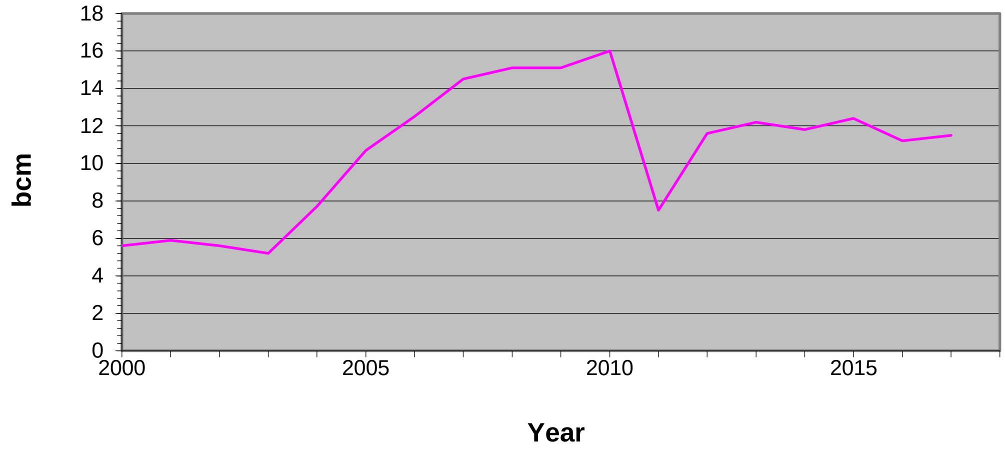
[7] Averages for 1991–2000 and 2001–2010 based on data in 'BP Statistical Review of World Energy', June 2018.

**Figure 2: Oil production 2000–2018**




Source: BP Statistical Review of World Energy, 2018; and NOC.

**Figure 3: Gas production 2000–2017**




Source: BP Statistical Review of World Energy, 2018; and NOC.

## 2. Oil and gas in the current era: 2011–present

After the relative stability and growth of the 2000s, the period which began in 2011 brought major disruptions and difficulties for the oil and gas sector. At first it was reasonable to expect that these disruptions and difficulties would be limited to events accompanying the violent conflict in 2011 itself, when the '17th February Revolution' led to aerial bombardment and large-scale ground-based conflict between organized armed forces across the country. In the aftermath of the conflict, in the months following Qadhafi's capture and defeat in August 2011, the oil industry made a rapid recovery, with production resuming and companies repairing damaged infrastructure. The result was that oil production rapidly recovered from the effects of this major disruption (which lasted for more than half of 2011, during which time there was a brief low of almost zero) to 1.1 mb/d in January 2012. During

2012 output averaged around 1.5 mb/d (or 1.3–1.4 mb/d, according to some sources). With the initial post-revolution administration making way for an elected transitional government in late 2012, it looked like the oil and gas sector would be able to stabilize, even if it would take some time before foreign companies resumed investment plans. Government officials talked of output returning to the pre-revolution benchmark of 1.6–1.8 mb/d, and even invoked the target of raising output to 2 mb/d once more.[8]

However, the oil and gas recovery in 2011 and 2012 was short lived, as a result of two factors. Firstly, patterns of insecurity and activity by local armed groups or militias became entrenched, causing repeated disruptions to oil production and export at locations around the country. This dynamic led to some fragmentation in the Petroleum Facilities Guard (PFG), a body set up in 2005 to provide oilfield security, and to the NOC losing control over the PFG (which it had previously funded).[9] Secondly, local competition over oilfield control and security was compounded after mid-2014 by the rise of a new national political crisis: rival would-be governments developed and the oil and gas industry became subject to disputed national authority.

## Insecurity: armed conflict and criminal violence

At first, during 2012–14 the main disruptor of oil and gas activities was insecurity – comprising armed conflict and criminal violence. The insecurity was mostly a general feature of Libya as the national government (first the interim government which took office in late 2011, and then the elected government which took office in July 2012) and local authorities all failed to bring about the demobilization of militias and the establishment of unified security forces. A combination of factors – the proliferation of weapons during 2011, post-revolution score settling, and people seeing opportunities to pursue personal profits with little risk of being held to account – led to conditions which were unstable, worrying, or outright dangerous for oil companies, whether Libyan or foreign.

Targeted score-settling killings were frequent in the aftermath of the revolution, but these generally did not threaten oil companies directly. The main targets were current or former government officials and police, as was exemplified by the frequent killings in Benghazi in 2012 and 2013.[10] However, such killings were part of a wider picture – a trend of eroded security – which meant that oil and gas sites and personnel working at them could not count on official security forces to provide adequate protection. Where insecurity and violence affected oil and gas locations directly, it generally did not discriminate between Libyan and foreign companies: armed groups targeted the capture and control of local oil and gas infrastructure, rather than singling out particular companies. Incidents of foreigners being targeted did occur, and fears grew. In January 2013 the attack and hostage crisis at the In Amenas gas facility in Algeria provided an example of the type of attack which it was reasonable to fear could also occur in Libya (the attack being suspected to have been organized partly from inside Libya). Having already suspended operations in 2011, many foreign companies therefore took the simplest safe option to reduce their security exposure – that of once more scaling back or closing their operations, and reducing the presence of foreign staff accordingly.

The lack of unified security forces and the proliferation, instead, of local forces and militias claiming legitimacy, made it all the more difficult for oil companies to obtain and maintain satisfactory security provisions for their staff in the field, and for oil infrastructure.[11] At the same time, during 2012–14, foreign and international organizations found themselves affected by a growing number of incidents, including shootings and ambushes. This deterioration in security – affecting foreign companies, international organizations, and diplomatic missions – reached a pivotal moment in July 2014, just a month after Libya's second post-2011 elections were conducted. In a new outbreak of fighting between militias, Tripoli's main international airport was heavily damaged. A number of countries took

[8] In November 2012 the NOC chairman said the oil and gas targets were 2 mb/d and 3.5 Bcf/d within three to five years. 'Libya sees oil output rising to 1.7 mil b/d by end Q1 2013: NOC', Platts, 7 November 2012.
[9] 'The prize: fighting for Libya's energy wealth', Crisis Group report, December 2015, pp. 7–8.
[10] 'Libya: wave of political assassinations', Human Rights Watch, 8 August 2013.
[11] Although Libya has some offshore oil and gas fields, more than 85% of its oil production is onshore.

this as the cue to close their embassies in Tripoli and they moved their diplomatic representation for Libya to neighbouring Tunisia. The United Nations special political mission for Libya (UNSMIL) also withdrew most of its staff from Tripoli to Tunis.

Insecurity directly affected the oil and gas industry. During 2013–14 disruptions at key oil export terminals became more frequent and more severe. In July 2013 strikes by workers, and blockades by units of the PFG, led to the closure of the oil export terminals in the Gulf of Sirte 'oil crescent', namely at Brega, Ras Lanuf, Sidra, and Zueitina, as well as the terminal in Tobruk.[12] The following month the NOC announced *force majeure* at all export terminals in the Gulf of Sirte, as it was unable to fulfil its contracts with international partners to supply oil and fuel through these ports. In September 2013 the NOC lifted the *force majeure*, after forces under the authorities in eastern Libya captured the Gulf of Sirte terminals from units of the PFG, led by Ibrahim Jadhran.[13] This was the start of a pattern of competition for control of the 'oil crescent': over the following four years, the Gulf of Sirte oil terminals would switch hands a number of times, and would become the zone in Libya where armed conflict and insecurity most affected the oil industry, causing volatility in output, particularly in 2014–17 (see Figure 2).

In August 2014, for example, the NOC issued a brief statement claiming that all ports, including Benghazi, were open.[14] The statement was intended to reassure international partners, but was too optimistic. Over the following months, forces led by Jadhran repeatedly fought back and sometimes captured and held oil export terminals, while other militias (either genuinely separate, or associated with PFG members) began to be active in the oilfields. In September 2016, forces under the name of the Libyan National Army, led by the eastern-based military leader Khalifa Haftar, captured the Ras Lanuf and Sidra oil terminals in the Gulf of Sirte, taking control of them from forces led by Jadhran.[15] Local forces and authorities also tried repeatedly to take control of exports and revenues. In November 2013, for example, an eastern Libya-based group calling itself the Cyrenaica Executive Office (and involving Jadhran) announced that it was setting up its own oil and gas company and began to seek buyers for Libyan oil. In March 2014 the US navy intercepted a North Korean-flagged oil tanker which had sailed from Sidra with 230,000 barrels of oil, apparently after contracting with Jadhran and partners.[16]

[12] 'Oil production down to a quarter of a million barrels a day', *Libya Herald*, 29 August 2013.
[13] Jadhran became a PFG commander in 2012 and gained attention in subsequent years because of his militia activity in the Gulf of Sirte and, sometimes, political advocacy for autonomy for eastern Libya. In September 2018 the UN added him to a list of Libyan individuals subject to financial and travel sanctions.
[14] 'Libyan government statement regarding ports', NOC press release, 14 August 2014.
[15] Haftar emerged in 2014 and became the most powerful military and political challenger to central government; he was broadly backed by the eastern-based House of Representatives, and opposed to the Government of National Accord established in Tripoli in 2016.
[16] 'The prize: fighting for Libya's energy wealth', Crisis Group report, December 2015, pp. 13 and 16–17.

**Table 3: Libya's oilfields and export terminals**

| Oilfields | Region (geographic) | Operator | Export terminal (for these oilfields) |
|---|---|---|---|
| Dahra, Gialo, Samah, Waha; Mabruk | central-east | Waha Oil Company, Mabruk | Es Sider (Sidra) |
| Nafoura | central-east | AGOCO, Wintershall | Ras Lanuf |
| Beda, Hamada, Magrid, Messla, Sarir | east | Mellitah, Wintershall, Zueitina Oil Company | Marsa al-Hariga (Tobruk) |
| Bu Attifel, Intisar, Nakhla | central-east | Mellitah, Wintershall, Zueitina Oil Company | Zueitina |
| Brega, Lehib, Nasser, Raguba | central-east | AGOCO, Sirte Oil Company | Marsa al-Brega |
| El Feel, Bahr el-Salaam | west | Mellitah | Mellitah |
| El Sharara | west | Akakus | Zawiya |
| Bouri (offshore) | west | Mellitah | Bouri |
| Al-Jurf (offshore) | west | Mabruk | Farwah |

Source: NOC and US Energy Information Administration, 'Country Analysis Brief: Libya'.

The proliferation of militias, including militant Islamist armed groups, increased the risks for foreign oil companies. In February and March 2015 local militias attacked and took control of the Mabruk oilfield.[17] In March 2015 militants declaring themselves members of the Islamic State group in Libya attacked the al-Ghani oilfield (in the Sirte Basin), killing eight guards and kidnapping nine foreigners working for an Austrian oilfield services company.[18] Although the Islamic State group in Libya was to prove a relatively short-lived emulation of the Islamic State group in Iraq and Syria, it became sufficiently potent to capture and hold the city of Sirte in 2015–16, until Libyan forces associated with the governments in Tripoli and Tobruk (and backed by foreign military assistance) largely defeated the group. Away from the Sirte Basin, other oil operations were also subject to targeted attacks by

[17] 'Libya oil fields of Bahi and Mabruk "seized by militants"', BBC, 4 March 2015.
[18] 'Libya violence: foreign oil workers kidnapped', BBC, 9 March 2015.

militant groups: in July 2015, for example, four Italian construction workers were kidnapped near the Mellitah oil and gas complex.

## Rival governments – and rivalry for control over the NOC

Simultaneous with the struggle for physical control of oil facilities in this period, and in significant ways linked with it, was the competition between rival would-be national governments after mid-2014. This political struggle caused difficulties for the oil industry, in particular for the NOC. Notably, between 2014 and 2017, the rival authorities competing to be Libya's national government repeatedly fought for formal control of the NOC. The first contest for control of the NOC came after the 2014 elections, between the rump or legacy government in Tripoli (known as the General National Congress, GNC) and the newly elected House of Representatives (HoR) government and authorities (which had established themselves in Tobruk and Bayda, after the elections and fighting in and near Tripoli).[19] Later, after peace talks in Morocco had produced the 'Libyan Political Agreement' at the end of 2015, the GNC faded and was superseded in Tripoli by the Government of National Accord (GNA), which began to establish itself in Tripoli in March 2016. Competition for control of the NOC then continued between the GNA and the HoR, the former taking from the latter the mantle of international recognition as Libya's national government. The course of these struggles illustrates how much value the governing authorities place on controlling the NOC. But it also shows how the NOC, with careful leadership, sought to place itself outside or above politics.

A key player in this process was the NOC chairman. In May 2014, while the transitional national government was still in power in Tripoli, the NOC board appointed Mustafa Sanalla to replace Nuri Berruein, after he resigned.[20] Sanalla had been a member of the NOC board since 2011 and had previously worked for some 25 years for the Ras Lanuf Oil and Gas Processing Company (Rasco, the operator of the Ras Lanuf refinery). In September 2014 the HoR recognized the incumbent chairman of the NOC, Mustafa Sanalla. In October, however, the old GNC government in Tripoli announced its own minister of oil, Mashallah Zwai who, it proposed, should work at the NOC headquarters in Tripoli. Then, in November 2014, the HoR announced it was appointing its own chairman for the NOC, Al-Mabrook Bou Seif, saying that he was replacing Sanalla.[21]

The GNC did not push Zwai's position and putative role at the NOC strongly, which left Sanalla relatively untroubled in Tripoli. However, when the HoR's appointment of a new NOC chairman was not accepted by the incumbent chairman and directors of the NOC in Tripoli, or by the governing authorities in Tripoli, the HoR began a process of establishing, in theory, a new NOC, separate to that in Tripoli. In March 2015 the HoR announced that it was cutting ties with the NOC in Tripoli, arguing that the HoR was the legitimate government and therefore had 'the right to deal and contract companies to authorise gas and oil sales'. Henceforth, said the HoR, sales had to be made through the NOC headquartered in eastern Libya and approved by its chairman, Al-Mabrook Bou Seif . The NOC in Tripoli responded in a terse statement, saying that the NOC's 'position' was neutral and that it took orders from neither the government in Tripoli nor the government in eastern Libya.[22] Meanwhile, the HoR had little success in managing to develop its own NOC and secure oil deals bypassing the established NOC in Tripoli. In August 2015 it announced it was appointing a new NOC chairman, Naji al-Maghrabi, but to little effect.[23]

Efforts to end the rivalry for control of the NOC and Libyan oil were made. One significant boost for the NOC headquarters' efforts to prevent the authorities in eastern Libya from increasing control over

[19] The situation of two rival governments developed as a result of the 'Operation Dignity' military campaign launched in the first half of 2014 by the military leader (and former national army commander) Khalifa Haftar, against the GNC or allies of it, and the counter-campaign, 'Operation Dawn', which was launched by armed forces in parts of western Libya against Haftar and his forces. See 'The prize: Fighting for Libya's energy wealth', Crisis Group, 2015.

[20] Berruein had been chairman since late 2011. 'Chairman of Libya's state-oil resigns', Reuters, 23 May 2014.

[21] 'Libya's recognized government appoints new chairman of state oil firm', Al-Arabiya, 27 November 2014.

[22] 'Libya rivals fight for control of National Oil Corporation', Middle East Eye, 22 March 2015.

[23] 'Eastern Libyan government appoints new chairman for its state oil firm', Reuters, 15 August 2015.

the oil industry came in March 2016, when the UN Security Council passed a resolution extending by another year the measures which it first approved in 2014 for preventing illicit oil exports from Libya. The resolution expressed an expectation that the new Government of National Accord (GNA) should have ‘sole and effective oversight’ over the NOC (and the Central Bank of Libya and the Libyan Investment Authority, the sovereign wealth fund).[24] Along with this, the resolution condemned attempts to export oil illicitly:

> ‘including by parallel institutions which are not acting under the authority of the Government of National Accord’.

This was an implicit reference to authorities in eastern Libya, if they did not put themselves under the authority of the GNA. The NOC welcomed the resolution, although in a statement it also invoked the ‘independence’ and ‘neutral position’ of the NOC, thanking international partners and oil companies who had supported and respected this.[25] This perhaps reflected Sanalla’s guardedness against the possibility of the GNA trying to assert control over the NOC.

Soon after, in July 2016, the NOC headquarters in Tripoli (with Sanalla in charge) reached a unification agreement with representatives of the rival would-be NOC in eastern Libya. Under the agreement, the HoR’s NOC chairman, Naji al-Maghrabi, was to join the NOC board, and the NOC was to report to both the GNA in Tripoli and the House of Representatives in Tobruk.[26] The NOC also reiterated its intention to build a new headquarters in Benghazi in eastern Libya. This move was an old aspiration which had contributed to some to-ing and fro-ing about the location of the NOC headquarters before 2011 (when Qadhafi had occasionally made sudden pronouncements about the possibility of moving the NOC). In 2012 the NOC revived plans for building a NOC headquarters in Benghazi, and a team was assigned to develop plans for this.[27] The NOC, however, generally avoided a definitive commitment to locating its overall NOC headquarters in Benghazi, and now indicates that the proposed new buildings in Benghazi will be for the NOC security department.

All the same, despite these and other conciliatory efforts by Sanalla and the NOC leadership, disagreements about control of the NOC did not end. In January 2017 the eastern-based NOC claimed that it had signed a total of 29 contracts independently of the headquarters NOC in Tripoli, some of the contracts being with China and Russia.[28] Then, in March 2017, the HoR in Tobruk announced that it was withdrawing its support for NOC unification.[29] This came shortly after forces allied with the HoR and the eastern-based military leader Khalifa Haftar (the forces called themselves the Libyan National Army or LNA) wrested control of the Gulf of Sirte oil terminals from forces opposed to them (at the time, these called themselves the Benghazi Defence Brigades). In a gesture of good will, in July 2017, Sanalla met with the mayor of Benghazi, Abderrahman Alabar, and discussed ‘social initiative’ projects which the NOC proposed to implement in Benghazi through its eastern subsidiary, AGOCO.[30] Nonetheless, the authorities in eastern Libya continued trying to take unilateral actions regarding the oil sector. In December 2017, for example, the HoR issued a decree amending a 1979 law about the location of the NOC headquarters, calling for the headquarters to be returned to Benghazi. The decree also added a provision for 5 per cent of oil revenues to be allocated to oil-producing areas.[31] In February 2018, without the support of the NOC or of existing PFG leaders,

[24] UN Security Council Resolution 2278, S/RES/2278 (2016), 31 March 2016.

[25] ‘NOC welcomes UN Security Council Resolution 2278 regarding illicit oil shipments’, NOC press release, 2 April 2016.

[26] ‘In sign of progress, Libya’s rival NOC oil companies agree to merge’, Reuters, 3 July 2016.

[27] The plans, for a six hectare site at Juliana, Benghazi, also included buildings for the Central Bank of Libya. In January 2017 the designs were advertised at a conference on reconstruction in Benghazi. See ‘NOC welcomes the holding of the Conference of Benghazi Reconstruction and reveals its projects in Benghazi’, NOC press release, 26 January 2017.

[28] ‘Eastern NOC claims oil deals and Russia, China’, Libya Business News, 17 January 2017.

[29] ‘Libya’s eastern parliament supports end of unified National Oil Corp’, Reuters, 15 March 2017.

[30] ‘Sanalla discusses NOC’s social initiative projects with the mayor of Benghazi municipality’, NOC press release, 19 July 2017.

[31] ‘Executive [office] of the House of Representatives issues decree about NOC headquarters’ (in Arabic), *Al-Marsad*, 3 December 2017.

Haftar appointed Maghrabi (the erstwhile head of the eastern rival NOC, and a former commander of an LNA tank brigade) to the command of the PFG.[32] In June 2018, pro-Haftar forces once more took control of the Gulf of Sirte oil terminals and briefly announced their intention to stop the NOC from managing oil exports from these terminals.[33]

While the political jockeying for control of the NOC and Libyan oil went on, the NOC also made its own efforts to assert its independence and authority, conducting, to an extent, its own domestic and international diplomacy, speaking out about disruptions and sometimes publicizing its discussions about exports, re-starts, and investment. In July 2016 alone, for example, Sanalla publicly expressed his opposition to a visit by the UN special envoy for Libya, Martin Kobler, to Ras Lanuf to meet with Ibrahim Jadhran. Sanalla described Jadhran as a 'criminal' and said that he had cost Libya 'over US$100 billion in lost oil revenues' because of the oil blockades and shut-downs he had caused over the preceding three years.[34] A few days later Sanalla met with the Sabratha municipal council and the Sabratha Elders Council in order to discuss (according to the NOC) environmental problems, illicit migration and its negative effects on the Mellitah complex, and local development plans and how the Mellitah Oil and Gas Company might support these.[35] At the end of the month the NOC issued a statement welcoming the call by the GNA for the re-opening of the ports of Ras Lanuf, Sidra, and Zueitina without restriction or condition.[36]

Sanalla and colleagues in the NOC management spelled out their preferences for the NOC in an 'op-ed' in the *New York Times* in June 2017, written in the name of Sanalla.[37] Although likely written with the assistance of a public communications firm, the article was a striking pitch by Sanalla to strengthen the NOC's protections from politics. In the article, Sanalla called for the 2015 Libyan Political Agreement to be amended to 'reinforce the NOC's authority and neutrality' and for Libya's oil sector to be 'ring-fenced' from local and international rivalries. This would, said Sanalla, have an 'enormous impact on the country's prospects, both economic and political'. With a similar purpose, in October 2017 the NOC facilitated a two-day discussion with Libyan stakeholders and representatives from the EU, Russia, and the USA, about 'principles' for protecting the oil and gas industry.[38] As the political impasse between the GNA and the HoR continued into 2018, defying international and Libyan attempts to resolve it, Sanalla and the NOC continued their domestic diplomacy – for example travelling to Qubbah, in eastern Libya, in January 2018, to meet with the HoR speaker, Agilah Saleh Issa, and to obtain a statement of his support for the NOC.[39]

## Effect on output

Inevitably, the combination of insecurity and political competition for control of the oil sector had consequences for output and investment, after the initial post-2011 recovery. Fighting and insecurity caused a range of stoppages and disruptions in the oilfields and at export terminals, and oil production fell from an average of nearly 1.7 mb/d just before 2011, to lows of as little as 200,000 b/d, and an average of around 430,000 b/d in 2016. From 2011 to 2016 new investment in Libyan hydrocarbons was largely halted. Prior to this period, the Libyan authorities had been aiming to raise output to 2 mb/d and more. That target had appeared realistic and achievable with only limited investment, despite the fact that some of the exploration in the late 2000s had yielded disappointing

[32] 'Haftar appoints al-Maghrabi as PFG commander in the central and southern region' (in Arabic), *Al-Motawaset*, 9 March 2018.
[33] 'After the showdown in Libya's oil crescent', Crisis Group report no. 189, 9 August 2018.
[34] ' "Dismayed" Tripoli NOC chairman Sanalla slams UNSMIL's Kobler as ignorant for meeting "criminal" Jadhran', *Libya Herald*, 24 July 2016.
[35] 'Meeting of the NOC and Sabratha municipal council', NOC press release, 28 July 2016.
[36] 'NOC welcomes unconditional opening of ports by the Petroleum Facilities Guard and announces national initiative for Libyan oil to flow without restriction or condition' (in Arabic), NOC press release, 31 July 2016.
[37] Mustafa Sanalla, 'How to save Libya from itself? Protect its oil from its politics', op-ed, *New York Times*, 19 June 2017.
[38] 'Libyan technocrats agree principles to protect oil sector', NOC press release, 11 October 2017.
[39] 'Speaker of the House of Representatives receives the Chairman of National Oil Corporation', NOC press release, 16 January 2018.

results. As it was, the 2 mb/d target was not to be reached, and the years 2013–16 saw particular volatility in output (see Figure 2).

In November 2012 the then NOC chairman, Nuri Berruein, claimed that Libya was producing 1.6 mb/d and indicated that he expected output to rise to 1.7 mb/d by March 2013.[40] After this post-2011 recovery, however, output fell rapidly to around 600,000 b/d in August 2013 and was barely 200,000 b/d at the end of the year. Over the following three years, 2014–16, average output was barely 450,000 b/d, and lows were around half this (for example: 212,000 b/d in May 2016). On a monthly basis average output during 2014–16 reached around 600,000 b/d in only three months (September and October 2014, and December 2016). Gas exports were also volatile and below pre-2011 levels: the volume of gas exported through the Greenstream pipeline in 2016 was 4.87 billion cubic metres, almost a third less than in 2015.

From late 2016 the trend in output turned, thanks to tentative improvements in oil cooperation between the NOC, the GNA, the HoR, and associated armed forces. In September 2016 the oil terminals serving the Sirte Basin re-opened, and in December 2016 the Sharara pipeline serving the Murzuq Basin re-opened. In April 2017 Eni re-started operations at the El-Feel oilfield, almost exactly two years after the 80,000 b/d oilfield had been closed due to disputes about guarding and controlling the oilfield.[41] In February 2018 Eni again halted production at El-Feel, after guards occupied the facility, demanding payment of unpaid wages.[42] But in the meantime the upward trend in national production continued, with the result that in December 2017 output had reached nearly 1 mb/d and the average output for the year was some 865,000 b/d – the best figures since 2013. Combined with rising international oil prices, Libya's oil revenues in 2017 jumped, tripling from the previous year and totalling US$14 billion.[43]

These figures exclude unreported or smuggled oil, which may have amounted to a considerable volume in the post-2011 years. In February 2018 the office of Libya's attorney general issued arrest warrants for 144 people, including Ibrahim Jadhran, the erstwhile PFG commander, on charges of smuggling oil. According to the NOC, it had provided the attorney general's office with 'reports and information on smuggling operations by criminal gangs'.[44] In April 2018 Sanalla announced a new set of policies to combat fuel smuggling, saying that smuggling was costing the economy some US$750 million per year.[45]

## 3. Continuities and changes

Plainly, in the years after 2011, and especially after the split in government in 2014, political turbulence and insecurity brought changes to Libya's oil sector. However, there were also significant continuities in the approaches of the NOC and Libyan authorities to oil and gas sector management and development, including in policies relating to work with foreign operating companies.

### The NOC and subsidiaries

In general, the NOC and its subsidiaries sought to maintain steady relations with each other despite the security difficulties faced, in particular, by NOC subsidiaries operating in the Gulf of Sirte (such as the Sirte Oil Company and the Zueitina Oil Company). The NOC and the Libyan authorities made no changes to the formal relationship between the NOC and its subsidiaries, or between the NOC and joint venture companies such as the Mellitah Oil and Gas Company. Meetings between the NOC, its

[40] 'Libya sees oil output rising to 1/7 mil b/d by end Q1 2013: NOC', Platts, 7 November 2012.
[41] 'Eni-operated Libya oil field to re-open after two-year halt', Bloomberg, 20 April 2017.
[42] 'Libya oil field halted amid still fragile recovery', Bloomberg, 23 February 2018.
[43] 'Libya oil revenues up sharply in 2017, budget deficit halved', Reuters, 5 January 2018.
[44] "NOC applauds Attorney General's issue of 144 smuggler arrest warrants", NOC press release, February 2018.
[45] 'NOC chairman Sanalla launches major anti fuel smuggling initiative', NOC press release, 18 April 2018.

subsidiaries, and joint venture companies were frequent and routine, with the NOC pursuing a programme of standard technical meetings reviewing company operations and plans. Thus in August 2016, for example, the NOC met with the Mellitah Oil and Gas Company at its offices in Tripoli, with specialists from ENI North Africa joining the meeting in person and by teleconference.[46] In July 2017 Sanalla convened a wider oil sector meeting in Benghazi, with officials from the HoR and from all of Libya's main state-owned oil companies. This discussed the 'difficulties and challenges' faced by the sector, in particular the reduction in the companies' budgets and the impact on operating and service companies.[47] In January 2018, Zueitina's senior management (headed by its chairman, Abd al-Nasr Zummeit) met with the NOC and its chairman, Sanalla, at the NOC headquarters in Tripoli and gave a presentation on the company's activities and accomplishments in 2017 and its project and work plan for 2018.[48] In February 2018 senior officials from the NOC and AGOCO visited Zueitina to observe progress on repairing Zueitina's facilities, and conveyed the NOC's thanks and appreciation to Zueitina's management.[49] In July 2018 the NOC announced changes in the management committees of AGOCO and the Sirte Oil Company, but these were consistent with the NOC's legal powers and past practices.[50]

In its interactions with its subsidiaries, the NOC explicitly acknowledged the difficulties they faced and complimented them on the efforts of their staff.[51] Libyan oil companies also continued to provide a wide range of benefits to their staff, maintaining the practices and habits of the country's public sector, which were similar to those of large public sector employers in other countries. Training programmes continued, and innovations were also possible, even if these were not revolutionary. In August 2016 the Petroleum Qualifying and Training Institute, a public training institution in Tripoli, marked the annual graduation of trainees; on this occasion there was a group of 214 trainees, the 44th batch since the institute was set up in 1970.[52] In 2017 the NOC, the Ras Lanuf Company, and OiLibya cooperated on launching a post-paying 'fuel card' to help citizens who, because of financial liquidity difficulties, were struggling to obtain fuel.[53]

Understandably, Libyan oil companies sought to cooperate in the best possible way with the various political and military forces competing for control of them. Thus in January 2017, for example, the Ras Lanuf Oil and Gas Refining Company hosted a meeting and joint press conference between Colonel Ahmed Mismari (the military spokesperson of the LNA), Abd al-Hakim Ma'tuq (a spokesman of the eastern-based government), and Abdullah Bilyahaq (a spokesman for the HoR). However, such interactions could not prevent changes in control: two months later, in March 2017, the LNA announced that it had lost control of Ras Lanuf. In February 2018 the Sirte Oil Company received a visit from the commander of the LNA naval forces; and in March the company received a joint visit from the newly appointed commander of the PFG for eastern and southern Libya, and a member of the NOC management board.[54]

[46] 'NOC technical meeting with Mellitah Oil and Gas Company for 2016' (in Arabic), NOC press release following meeting on 21–22 August 2016.
[47] 'Chairman participates in enlarged meeting for the oil sector in Benghazi' (in Arabic), Waha Oil Company press release, 20 July 2017.
[48] 'Zueitina Oil Company announces re-start of natural gas plant in Zueitina oil port' (in Arabic), Zueitina press release, 8 January 2018.
[49] 'Letter of thanks and appreciation from member of NOC board' (in Arabic), published by Zueitina Oil Company, 11 February 2018.
[50] 'NOC restructures AGOCO management committee' and 'NOC restructures Sirte Oil Co management committee', NOC press releases, 23–24 July 2018.
[51] For an example of NOC praise and close interaction with workers, see 'NOC chairman inspects the conditions of the workers', NOC press release following a visit by Sanalla to Ubari, 20 June 2017.
[52] 'Graduation ceremony for 44th batch of trainees from Petroleum Qualifying and Training Institute', NOC and institute press release, 2 August 2016.
[53] 'Ras Lanuf', magazine of the Ras Lanuf Oil and Gas Refining Company, no. 6, January 2017, p. 3.
[54] 'Chairman receives commander of the naval forces', press release in Arabic, Sirte Oil Company, 27 February 2018; and 'Eastern Petroleum Facilities Guard commander visits the company', press release in Arabic, Sirte Oil Company, 26 March 2018.

Meanwhile, joint venture operating companies tried to maintain the involvement of their foreign shareholders, even if those companies had reduced their direct involvement in operations, in order to reduce risks to staff. In August 2017 Waha Oil Company's exploration directorate met in Tripoli with the NOC and representatives from Waha's foreign partner companies (namely Conoco Phillips, Hess, and Marathon), in order to review exploration results from 2017, and exploration plans and the budget for 2018.[55] In October 2017 Mabruk held a second technical meeting at its Tripoli headquarters with the NOC and representatives from Total and Wintershall (the two foreign partners in Mabruk), to discuss Mabruk's operations, including the long-running obstructions at the Sharara oilfields.[56]

## International oil companies: exiting, investing

Foreign companies responded to the changed situation in Libya in varying ways, according to their priorities and how their operations had been affected by the troubles. Some companies looked to exit the country, others to hold their positions, and a few took opportunities to agree new deals and investments.

In January 2017 OMV bought out Occidental's 7 per cent stake in the Nafoura oilfield in the Sirte Basin. This came after the re-opening of the Zueitina oil terminal, which made exports from Nafoura possible again. OMV has been present in Libya since 1975, initially as an explorer, and then as a producer, after it bought a 25 per cent stake in Occidental's producing assets in Libya in 1985.[57] Between 2012 and 2017, production from OMV's assets in Libya was disrupted by repeated blockades of pipelines and oil terminals. In 2017 OMV production averaged 25,000 b/d, and in early 2018 OMV said that it would take further investment, and three to five years, to raise production from its oilfields to 40,000 b/d.[58]

In April 2017 Eni announced it had made a new gas and condensate discovery offshore in the Bouri field (north of the Bahr Essalam oilfield).[59] In June 2017 the NOC reached an agreement with Wintershall (of Germany) about oil share arrangements and the resumption of production at some of the oilfields operated by Wintershall. A few days later, the NOC chairman, Sanalla, met with the regional manager of Equinor (formerly Statoil), to discuss the company's operations and prospects for increasing recovery rates at the Sharara oilfields, where production had resumed in April.[60] Shortly after this, Sanalla met with OMV to discuss the company's operations in Libya, its partnership with AGOCO, and development of the Nafoura oilfield.[61] In July Sanalla met with senior management of Tatneft (Russia) and encouraged the company to resume exploration in the Ghadames and Sirte basins.[62] In March 2018 Total announced that it had bought a 16.3 per cent stake in the Waha oil concessions from Marathon, for US$450 million.[63]

As oil production recovered, buyers with possible interest in future upstream investment quickly came forward. Following a preliminary agreement signed with the NOC in February 2017, and suggestions that wider cooperation would be discussed, in mid-2017 Rosneft started to buy Libyan crude monthly.[64] Other buyers for Libyan oil exports in 2017 included Glencore, OMV, Total, and Vitol. In January 2018 BP and Shell agreed annual contracts for buying Libyan oil direct. Other companies

[55] 'Activities of the Exploration Directorate', Waha Oil Company press release, 29 August 2017.
[56] 'NOC's second technical meeting for 2017 with Mabruk Oil Operations', NOC press release, October 2017.
[57] 'OMV buys Occidental stake in Libya's Nafoura oil field – Libyan oil officials', Reuters, 27 January 2017; and 'NOC and Austria's OMV look to expansion at Nafoura', *Libya Herald*, 23 June 2017.
[58] 'Factsheet OMV Libya', March 2018, OMV Upstream.
[59] 'Eni makes a new gas and condensates discovery offshore Libya', Eni, April 2017.
[60] 'Libya reviews oil production stimulus with Norway's Statoil', UPI, 20 June 2017.
[61] 'NOC chairman's meeting with the Austrian company OMV', NOC press release, 21 June 2017.
[62] 'NOC meets with the Russian company Tatneft', NOC press release, 10 July 2017.
[63] 'Oil major Total expands in Libya, buys Marathon's Waha stake for $450 million', Reuters, 2 March 2018.
[64] 'Russia's Rosneft started to lift oil from Libya', Reuters, 10 July 2017.

which secured oil purchase agreements in 2018 included API, BB Energy, Cepsa, Eni, Repsol, Socar, and Unipec.[65]

As well as actively courting the return of foreign companies, the NOC sometimes asserted itself regarding major decisions by foreign companies, as it had done in the past. In October 2013, for example, the NOC used its rights as the majority partner in the Waha oil consortium to block moves by Marathon to sell its stake in Waha. Active management and intervention in potential deals was not new. In 2009 the NOC had blocked the Canadian company Verenex from selling its Libyan assets to CNPC, and instead later bought the assets itself.[66] Despite the political turmoil in the country, the NOC also applied itself to resolving disputes with foreign companies – with some success. In January 2018 the NOC reported that it had won a legal dispute with two foreign companies, Trasta Energy (an Emirati company) and the Libyan Emirati Refining Company (Lerco). The case had escalated in late 2013, when Trasta and Lerco initiated arbitration proceedings against the NOC through the court of the International Chamber of Commerce. In late 2017, the court dismissed a claim by Trasta for damages from the NOC, and in January 2018 it dismissed a US$812 million damages claim from Lerco; the court awarded the NOC compensation for counterclaims totalling US$116 million.[67]

## 4. What next for Libya's oil and gas sector?

Looking back at the periods before and since 2011, and thinking ahead to the coming years, two factors look likely to continue to be particularly significant for outcomes and prospects in Libya's oil and gas sector:

- the degree of stability in the NOC and the sector,
- the role of individuals or personalities, for better and for worse.

Intertwined with these institutional and personal factors is the factor of local and national groups seeking to benefit financially by controlling infrastructure on the ground.

It is striking how resilient Libya's oil and gas companies have been, even in the face of the disruptions caused by revolutionary change, fighting, and insecurity, and despite the reduced presence and activity of foreign companies. The NOC and its subsidiaries have been relatively stable, especially when contrasted with the country's government or would-be governments. This stability has been the result of a combination of factors: a desire to protect the sector (as much as to fight over it), leadership within the NOC, and growing technical and professional capabilities within Libyan oil companies. In a way, too, the relative stability of the NOC and subsidiaries in the turbulent years since 2011 has been a continuation of the stability that they had demonstrated during the turbulent (though less violent) years under Qadhafi.

At the same time, individuals and the roles they have played have mattered for the sector. For all oil and gas companies in Libya, national and foreign, one positive change that the departure of Qadhafi promised was an end to personalized policy interventions, together with the possibility that Libya would become a more open and less politically difficult environment to work in. Qadhafi was notoriously capricious, and his political whims sometimes caused problems for foreign companies, including oil companies. The opportunity for a better policy environment was, however, jeopardized by conflict and political rivalry after 2011, which brought their own particular liabilities for oil companies. On the positive side, the efforts of the NOC chairman, Mustafa Sanalla, and individuals who supported him, were central to the recovery of oil production during 2016–18: Sanalla's success

[65] 'Shell and BP to buy Libyan oil as country recovers', Bloomberg, 17 January 2018; 'Libya sets 2018 oil contracts, Glencore keeps Sarir/Messla grades', Reuters, 18 January 2018.
[66] 'Marathon struggles to exit Libya as unrest grows', Reuters 25 October 2013.
[67] 'NOC wins arbitration case and calls for the restart of Ras Lanuf refinery operations', NOC press release, 6 January 2018.

earned him plaudits both inside and outside the country.[68] But it was also, perhaps, a vulnerability of Libya's oil and gas sector that the recovery should have depended so much on one person.[69]

Overall, in the post-2011 era, the NOC and the oil sector have therefore presented something of a paradox: insecurity and conflict have had a major impact on oil infrastructure, production, and exports; but the NOC and other companies have, to some extent, remained above and protected from the political disorder. This was true even when the Tobruk-based administration tried in 2015 to establish its own NOC. And it was true in 2016–18 when control of the Gulf of Sirte export terminals was repeatedly fought over by the eastern-based military leader Haftar and his LNA, the Tripoli-based GNA, and local militias or more formally based units such as the PFG. Local actors and national rivals have sometimes fought to control oilfields, pipelines, or terminals, usually for the sake of direct or indirect financial benefit; but in the longer run they have sought to co-operate with the NOC, and for production and exports to continue or resume.

These dynamics are likely to continue for as long as the rift over national government is not resolved, and for as long as Libya does not have unified armed forces. Divisions between Libyans run deep, and divisions in international policy towards Libya are entrenched.[70] Given this, it is not inevitable that a unified and stable national government will be established soon.[71] Intermittent moves by one side or another to seize control of oil infrastructure may well continue, even if they are short-lived. If and when a unified and stable government is established, it may take considerably longer to achieve the unification of national armed forces and oilfield protection forces, and the complete disbandment of local militias. This political and security outlook will not prevent investment in the oil and gas sector during the next five years, but it is likely to constrain investment, albeit not as severely as during much of 2011–18.

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[68] In November 2017 the *Petroleum Economist* awarded Sanalla the title of 'Chief Executive of the Year', saying that his success in quadrupling oil output had been a 'feat crucial to Libya's survival'. See 'Libya's Sanalla wins Petroleum Economist Chief Executive of the Year award, and dedicates it to National Oil Corporation employees', NOC press release, 21 November 2017. See also: 'Libya's ascendant oil boss poses challenge for OPEC, Russia', Bloomberg, 18 July 2017.

[69] Amidst an outbreak of armed clashes in the capital in September 2018, the NOC headquarters were attacked by masked gunmen on 10 September, and two staff were killed before the attackers were overpowered by security forces. The incident was indicative of continuing vulnerabilities for the NOC and national authorities. 'Gunmen attack headquarters of Libya's state oil firm', Reuters, 10 September 2018.

[70] Since the split in government in 2014, Egypt, Saudi Arabia, and the UAE have favoured the HoR and Haftar, while Qatar and Turkey have favoured the authorities in Tripoli. In the same period, US policy towards Libya prioritized counter-terrorism activities (for example against Islamist militant groups), while European countries sought variously to prioritize economic interests, combating irregular migration, and counter-terrorism.

[71] Despite the antiquity of places such as Tripoli and other historic towns, Libya as a united polity and country has had a relatively short history. Given this, and Qadhafi's rule, it was therefore reasonable to expect daunting difficulties in the years after 2011. See Dirk Vandewalle, *A history of modern Libya*, Cambridge University Press, 2012, p. xi.