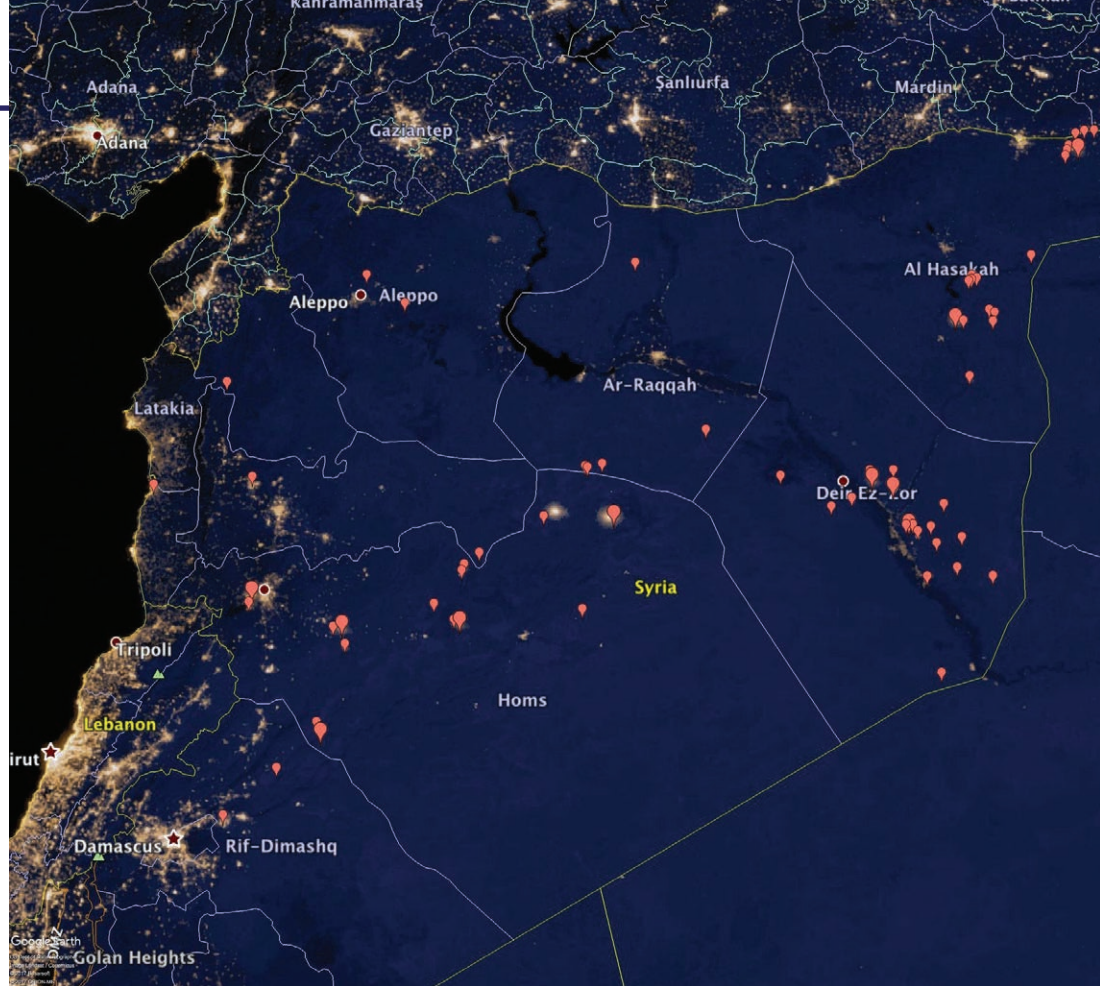


Throughout 2018, US President Donald Trump urged Egypt, Saudi Arabia, the United Arab Emirates (UAE) and Qatar to provide troops and funding to replace US forces in Syria once Islamic State (ISIS) had been defeated. Over that period the Gulf States, who had sponsored jihadist groups in Syria, signalled that they were ready to restore relations with Syrian President Bashar al-Assad. Shortly after Trump's December 2018 confirmation that 2,000 US troops will leave Syria, the UAE announced it would reopen its Damascus embassy, Kuwaiti ministers suggested a 'thaw' in relations with Syria, and the Arab League appeared ready to re-admit Syria to its ranks eight years after its expulsion. Syria is now in a 'post-conflict' stage, Gulf commentators observed. Reconstruction in Syria, especially the wrecked energy sector, is now the priority.

Such reconstruction, and who pays for it, may be an over-hyped chimera. The repair and development of Syria's declining oil and gas resources will provide little profit for operators beyond financing the national or foreign militias that control an installation and allegedly giving a private cut to the Assad family. International sanctions against Syria will remain in place for the foreseeable future so long as the regime is supported by Iran and its Hezbollah proxies. Foreign energy companies that abandoned their assets in Syria in 2011 in response to international sanctions are not expected to return anytime soon. Syria's readmission to the Arab League is not a done deal either. Russian, Iranian and the Gulf State interest in reconstructing Syria and its energy resources is a façade, local analysts say privately. For these powers, Syria is a springboard to extend their influence throughout the Levant and Mediterranean regions.

Territorial control

Territorial control of the country remains fluid. There is no certainty about the degree of US withdrawal from Syria as US intelligence operatives are expected to stay. Since 2016, Russia has twice signalled its intention to leave Syria but has remained and consolidated control, via its Russian and Chechen mercenaries, over many energy installations. Iranian militias are entrenched around Damascus and other towns, often taking over homes of Syrians who have fled. Russia and Iran are



Syria's shifting sands

A reconstruction boom in 'post-conflict' Syria is not an immediate prospect, writes Maria Kielmas.

trying to reorganise the Syrian army. Russia wants to create a centralised, quasi-Soviet system with military districts and overseen by security services. Iran wants a dispersed militia like Hezbollah in Lebanon. Both countries are grooming generals to succeed Bashar al Assad. Forces led by Brigadier General Suhail al-Hassan, favoured by Russia, clash regularly with those led by Maher al-Assad, President Assad's brother and Iran's choice. Russian and Chechen forces have clashed with Iranian militias around Hama, and have driven away Iranian groups from the Israeli border. The two countries are not allies in Syria, Russian Deputy Foreign Minister Sergei Ryabkov has said.

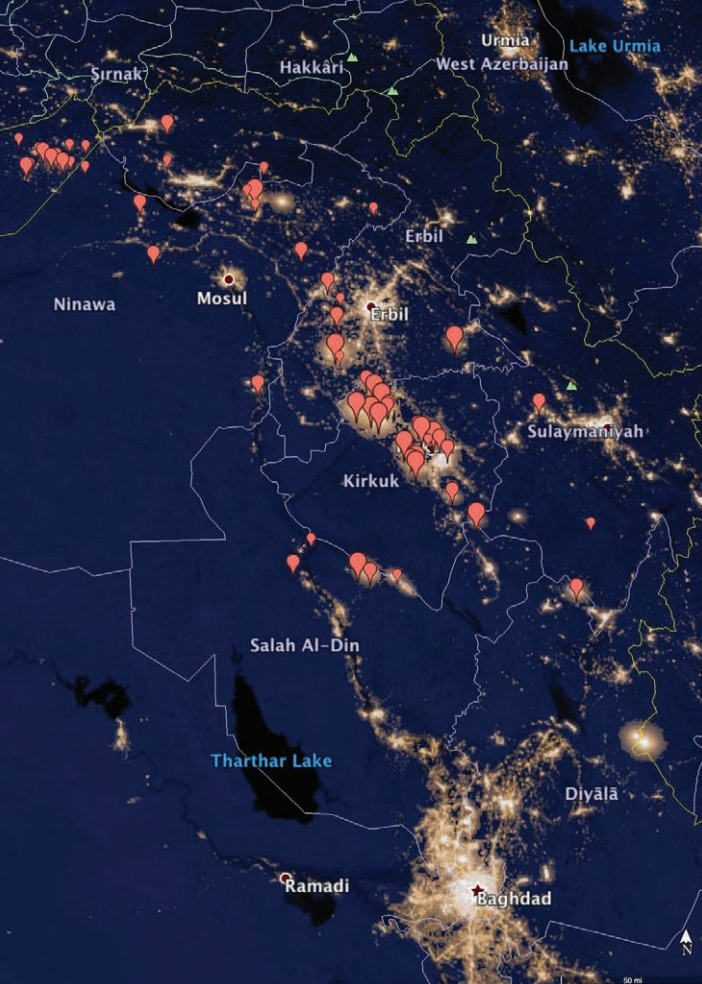
Turkey wants a 32 km buffer zone along the north Syrian border, a plan supported by Trump, who also wants US western allies to help create it. But Ankara wants it clear of the US' erstwhile Kurdish allies, the Peoples' Protection Unit (YPG), the militia of the Democratic

Union Party (PYD), whom it views as aligned to the rebel Maoist Kurdistan Workers Party (PKK) at home. Turkey and Russia have agreed on joint management of strategic areas and Russian bases around Latakia and Hama, and to de-escalate the conflict in Idlib Province, a jihadist stronghold.

Depleting fields

However, future investment in damaged or abandoned oil and gas fields faces huge technical problems because of their rapid depletion. Prior to the start of the conflict in 2011, Syria produced 383,000 b/d of oil (down from a 1996 peak of 604,000 b/d) and 316mn cf/d of gas, half of which came from non-associated fields. About 25% of produced gas was reinjected into oil reservoirs, while 90% of the remainder was used for power generation. Fields in the north-eastern Hasakah Province and alongside the Turkish border produce a heavy 12–26° API crude with a high metal and sulphur content from mainly carbonate reservoirs with highly variable porosities. Fields in the Palmyrid region in the Euphrates river valley produce a light 34–38° API crude with low sulphur content from sandstone reservoirs. The

NOAA satellite image of ISIS oil production
Photo: NOAA



discovery of the Palmyrid fields in the 1980s increased Syria's oil reserves from 1.5 to 2.5bn barrels.

But, by the early 2000s, the younger fields had entered what engineers called a 'mid-life crisis'. In 2006 the Omar, Thayyem and Tanak fields, and 25 smaller accumulations in the Euphrates valley south of Deir ez-Zor and operated by the Al Furat Petroleum Company (whose 37.5% shareholder and operating partner was Shell) produced 145,000 b/d. This was achieved through the injection of 600,000 b/d of water, of which 300,000 b/d was produced together with the crude. Poor connectivity between reservoir sands and water meant the reservoirs were not swept properly and crude output fell to 90,000 b/d by 2011.

There were difficulties in obtaining state-of-the-art technology after 2004 when the US imposed sanctions on Syria because of its support of Hezbollah in the Lebanon war. Operators resorted to cheaper, low-salinity water flooding in some fields but believed that they only had a 10-year remaining production life, when Syria would become a net oil importer. A high water cut also affected production in the Hasakah region fields. Some operators hoped exploration would discover new reserves but balked at Syria's unattractive contract terms. Shell considered leaving the country.

Control of installations

After the foreign companies quit Syria, many fields in Hasakah Province fell under Kurdish militia or Kurdish-Arab Syrian Democratic Forces (SDF) control in 2012, and produced up to 25,000 b/d by 2016. Gulf State-backed Al Nusra, an Al Qaeda offshoot, took control of the Deir ez-Zor region in 2012 but was ousted in 2013 by ISIS militias moving in from northern Syria. Al Nusra offshoot Hayat Tahrir al-Sham, supported by Saudi Arabia and Qatar, according to Iran, now controls much of Idlib Province. ISIS controlled the oil region until 2016 when it was pushed out by SDF forces.

World Bank and Princeton University researchers estimated ISIS oil production over the period by analysing visible infrared imaging radiometer suite (VIIRS) data from the NOAA/NASA Suomi NPP satellite. The sensors captured heat emitted by gas flares from producing wells and this data was used to assess oil production volumes (see picture). These were approximately 56,000 b/d from July–December 2014, falling to an average of 35,000 b/d through 2015 and 16,000 b/d in 2016.

Production targets

In May 2017, total Syrian oil production fell to 8,000 b/d, according to Oil Minister Ali Ghanem. A petroleum engineer formerly employed by Canadian Suncor's Syrian affiliate Ebla Petroleum, Ghanem said in December 2018, when oil output was about 70,000 b/d, that end-2019 production targets are 24.5m cf/d of gas and 219,000 b/d of oil. Specialists familiar with the region deem these volumes unlikely.

Ghanem hopes to call an offshore exploration round in 2019 for 'friendly nations'. Offshore hydrocarbon prospects in Triassic sandstones and Cretaceous dolomites are highly rated. In 2015, Russia's Soyuzneftegaz signed for two offshore blocks, but withdrew the same year because of the conflict. But it may return as, in December 2018, Russian-occupied Crimean Prime Minister Sergey Aksyonov signed a deal with Damascus for Chornomornaftogaz to deliver offshore drilling platforms and to create a joint shipping company with Syria.

Oil revenue claims

Throughout the conflict managers at producing oil and gas installations paid off the controlling militias through sales of oil and especially gas to intermediaries

who resold the fuel to the Assad regime. Local populations in Deir ez-Zor and Hasakah under SDF control are now demanding a share of these revenues. In late January 2019, the Democratic Autonomous Administration, a PYD-controlled political group, called for local royalties to be paid countrywide. 'Distributing Syrian wealth to Syrian regions in a fair manner', the group said in a statement, is one of its demands prior to peace negotiations with Damascus.

Under a 2016 agreement between Moscow and Damascus, Russian military companies such as Evropol, the holding company for the Wagner Group headed by Evgeny Prigozhin, a friend of Russian President Vladimir Putin, receive 25% of oil and gas sales revenues from the installations they control. Russian and Chechen mercenaries in Syria earn a maximum of \$6,000 monthly. They are deployed in seven to eight-month stints in Syria as well as Ukraine, Central African Republic, Mozambique and Venezuela. In May 2018, Russian-led Syrian forces attacked US troops outside Deir ez-Zor. Over 200 of the attackers were killed in the resulting firefight.

Iran has spent \$6bn annually since 2012 in propping up the Assad regime, according to the United Nations. Iranian President Hassan Rouhani said the country faces its worst economic crisis for 40 years because of international sanctions. It has also supplied 60,000–100,000 b/d of oil to Syria under a separate line of credit. So its stated intent to repair the Syrian power grid and build new power plants may not materialise.

Repatriating jihadists

In November 2016, the UAE together with Saudi Arabia and Israel pushed for a grand bargain on Syria between Trump and Putin. The Syrian conflict could be resolved if US sanctions on Russia imposed after the 2014 Crimean occupation were removed in return for Russia pushing Iran out of Syria. It failed. Damascus, Abu Dhabi and Dubai host regular meetings on investment in Syria but the only result to emerge is the UAE's intent to repatriate its jihadist extremists. China also wants to extradite an estimated 5,000 Uighur jihadists from Syria. Anthony Cordesman, a strategist at Washington DC-based Centre for Strategic and International Studies (CSIS), estimates there are 40,000 ISIS fighters remaining in Syria. It seems that Syria's 'friends' want their extremists first before financing energy reconstruction. ●