The Eastern Mediterranean is in the midst of a significant energy revolution. Sizeable discoveries of over 35 trillion cubic feet (tcf) of natural gas offshore Israel and Cyprus have, since 2009, transformed the region’s fate as a long-term energy importer reliant on neighbouring Arab and Russian suppliers, into that of a prospective net exporter.

US Geological Survey estimates suggest that a further 85 tcf could yet be discovered within the Levant basin (the stretch of land and sea that ranges from Syria and Lebanon in the north, down to the coast of Israel and the Palestinian territories in the south). The Eastern Mediterranean gas discoveries, therefore, mark not only the emergence of a new regional gas province, they also signify the fall of one of the last hydrocarbon frontiers in the Middle East.

The significance of these gas discoveries extends beyond their use in the domestic energy sectors of Israel and Cyprus, for their export value gains them the attention of a range of interested potential stakeholders, including markets (such as those in neighbouring Europe) that could benefit from importing Eastern Mediterranean gas. However, the real value of Eastern Mediterranean gas, both in economic and in wider geostrategic terms, lies in its regional use. Israel and Cyprus lie close to a region defined as much by long-standing political conflict as by economic difficulty, in which low-cost, regional gas supplies could well play an important strategic role. Eastern Mediterranean gas offers a rare opportunity for the region to re-engage in mutually beneficial trade relations that could underpin both greater economic and political stability in one of the world’s most politically volatile regions.

**Exploration Success with Some Future Prospects**

The Eastern Mediterranean gas discoveries made since 2009 were, indeed, not the first exploratory successes in the offshore Levant basin. Gas was discovered in 1999 and 2000 at Israel’s offshore Noa and Mari-B fields, as well as in offshore Gaza, although these first discoveries were small, triggering little of the notable attention the region has received more recently. The region’s
first offshore discoveries were as much the result of economic stubbornness as of politically conceived economic need; Israel’s historic political and economic isolation amongst its Arab neighbours having motivated the country’s on- and offshore exploration efforts for decades, with the strategic aim of reducing its import dependence for energy reaching back to the 1970s.

While Mari-B provided Israel with small volumes of domestically produced gas for a limited period of time, subsequent years saw disappointing exploration results, reinforcing expectations in both Israel and the wider region of remaining reliant on energy imports for the foreseeable future. Eventually, new gas discoveries were made in 2009, again in Israeli waters, and this time they were large – amounting to some 10 tcf mostly located in Tamar, and then came the landmark discovery of the giant Leviathan field in 2010, with up to 20 tcf. Israel’s offshore success was subsequently mirrored by Cypriot discoveries of up to 7 tcf of offshore gas resources in its south-east located block 12, in the Aphrodite play close to Israel’s Leviathan discovery. Further exploration work is underway, with Cyprus having tendered out five more blocks adjacent to the Aphrodite play in the hope of raising the island state’s recoverable resource estimates further.

‘Natural gas has the unprecedented potential to change the energy landscape in the Eastern Mediterranean forever.’

With proven reserves of some 9.4 tcf by the end of 2012 and an estimate of up to 40 tcf of currently known offshore gas resources, Israel now holds resources large enough to supply its domestic market for several decades and to allow for exports. The small domestic market of Cyprus similarly allows for surplus gas to be exported, opening up the opportunity of post-2020 gas export revenues, in addition to savings made by the domestic use of its offshore gas resources in place of oil in the power sector. Israel’s offshore reserves put the country in the ironic position of overtaking all its direct Arab neighbours, including Syria, in the size of its natural gas reserves, and currently offering the Levant region’s only immediately available potential export volumes of natural gas.

Lebanon and Syria, too, offer promising prospects for offshore hydrocarbon deposits, following initial seismic work, and hold high-end interest in developing and future offshore discoveries. The complicated domestic political scenes in both countries – characterized by quasi-permanent parliamentary stalemate in Lebanon and the civil war in Syria which has escalated since 2011 – have pre-empted plans by the two Arab neighbours for the exploration of their share of the Eastern Mediterranean sea. And while Lebanon now seems set to move ahead with a first offshore licensing round this year, the chaos in Syria will likely keep its offshore off the regional hydrocarbon map for longer.

Economically Well-timed Discoveries

The Eastern Mediterranean discoveries since 2009 have arguably come at exactly the right time. The Middle East and North Africa as a region has experienced tremendous growth in domestic energy demand over the past decade, a rising share of which is supplied by diminishing natural gas supplies. Regional gas reserves are highly concentrated in a few large gas producers, principally Iran, Qatar, and to a lesser extent Saudi Arabia. Of these, only Qatar is currently a stable gas exporter, albeit primarily in the form of flexible yet expensive LNG.

The Levantine economies, generally less well-endowed in hydrocarbon wealth than the oil-rich Gulf states and parts of North Africa, have for most of their histories been dependent on imports for the majority of their energy needs. Excluding Syria, this has been true not only for Israel, Lebanon, and Cyprus, but also for Jordan and, most recently, Egypt. Egypt’s case dramatically illustrates what has gone decisively wrong in the region for most of the past 20 years or more – surging domestic demand. This has been driven by population growth, rising living standards, energy-intensive industrialization policies, and a domestic energy price environment which endemically undervalues energy down to a fraction of average energy costs prevailing anywhere else in the world. This has crippled Egypt’s gas export capacity over the last few years.

‘Israel now holds resources large enough to supply its domestic market for several decades and to allow for exports.’

Having famously cancelled its existing gas supply contract with Israel in April 2012, the Egyptian government has since struggled to fulfil its gas supply contract with Jordan – this has been recurrently interrupted by political turmoil and sabotage. Both Jordan, whose power sector is more than 80 per cent dependent on Egyptian gas, and Lebanon, which is forced to rely on oil for power generation, are arguably in a gas crisis. So is Egypt, whose current domestic situation is not only shaped by continued political turmoil and dysfunctional governing institutions, but also by insurmountable budgetary pressure, and continued fuel shortages and electricity blackouts.

… But it’s the Politics, Stupid

The domestic predicament facing Syria and Lebanon regarding their lagging exploration progress, and Egypt’s current gas crisis, give us a taste of the sort of dynamics which are likely to drive the direction of Eastern Mediterranean gas development. Eastern Mediterranean gas could play an economically sound and mutually beneficial role in the Levant’s current energy-related economic predicament: Israeli gas, perhaps also gas from Cyprus, could supply gas-short neighbours through existing and expanded gas pipeline infrastructure. Israel’s most immediate neighbours, the Palestinians, are already set to benefit from gas, albeit supplied from Israeli offshore fields. The current turmoil in Egypt – which has idle LNG facilities and unfulfilled export contracts, but has been opposed deeply to trade with
Israel on ideological grounds – finds the country’s economy in disarray, with continuing negotiations for IMF loans to keep the economy from hitting the buffers. It could, commercially speaking, benefit significantly from an Israel–Egypt gas-linked entente.

Cyprus, which is divided between Greek and Turkish communities, faces controversy centred around its gas development plans. Territorial water delimitations claimed by the Turkish Republic of Northern Cyprus (TRNC) overlap with offshore blocks of the Republic of Cyprus. Turkish claims also overlap with Cyprus’s Exclusive Economic Zone located in the southwest of the island, a factor which has been blamed for the continued negotiations over Cypriot blocks 5 and 6 for which bids have been received.

In spite of these political barriers, Turkey could yet offer a geographically close and economically logical export market for Cypriot gas, which would diminish Turkey’s need for higher-cost Russian gas imports and the political controversy associated with Turkish alternatives to Russian gas which include Iranian gas, and Kurdish gas from northern Iraq. This could potentially contribute to Turkey’s intended role as energy hub for Eastern, not Russia-based gas deliveries towards Europe. However, the absence of a settlement of the Cyprus problem renders this option highly unlikely in the near future, at the cost also of the northern Cypriot community, which would significantly benefit from a reconciliation with the Greek Cypriots in the south.

Turkish claims to defend northern Cypriot interests in the offshore Mediterranean have been met by yet more sabre-rattling on the other side of the coastline, between Israel and Lebanon which also share disputed land and maritime boundaries. Egypt, too, is looking to reassess its offshore claims towards the east, towards what would be Palestinian waters, albeit under de facto Israeli administration. Palestinian interests in the offshore Mediterranean have perhaps been the most overlooked in recent years. Offshore Gaza offers two known plays sizeable enough for commercial development, yet deadlock between the Israeli government – keen to prevent any direct gas development revenue stream to Hamas – and shareholders has kept the discoveries from being developed.

**Uncertain Outcome**

Geostrategic interests in the Eastern Mediterranean are yet to shape the direction that gas development will take. Beyond impacting current development and future gas export volumes – which remain a separate domestic policy issue in both Israel and Cyprus – regional politics will most likely prove critical in determining both the extent to which Eastern Mediterranean gas will benefit the region as a whole (or only its immediate resource holders) and the eventual destination of Eastern Mediterranean gas flows. While regional options are attractive, both economically and politically, for Israel and Cyprus, political barriers to greater regional gas trade leave both countries looking at other export options.

Cyprus, with limited pipeline options, has already decided to prioritize LNG exports. The expected size of initial Cypriot exports – with some estimated 5 million tons per annum – makes the country an unlikely second Mozambique or Tanzania, but will eventually generate badly needed funds for the country, whose public finances are struggling under the terms of a multilateral bail-out. By contrast, Israel, an island politically if not geographically, offers feasible regional options. In June, Israel removed the last remaining hurdle for gas exports, by approving the export of 20 bcm of Israeli gas. Still, Israel’s domestic battles have not yet all been fought, and it may eventually agree to a joint LNG project in Cyprus, a pragmatic option in a region so deeply divided by politics.

Regardless of the many other challenges involved in bringing the region’s gas to market (including the not yet fully resolved question of the size and nature of exports, the fiscal and regulatory regimes that are a work-in-progress, and the eventual confirmation of technically recoverable reserves), the offshore gas discoveries made since 2009 have had a tremendous effect on the regional energy power balance in the Eastern Mediterranean. Being the latest – and possibly last – gas frontier in the Middle East, the area is of no less consequence for world gas markets than East Africa and the Caspian. Natural gas has the unprecedented potential to change the energy landscape in the Eastern Mediterranean forever.

The author recently published a study co-authored with Bassam Fattouh and Hakim Darbouche under the title ‘East Mediterranean Gas: What Kind of Game-Changer?’, available on the OIES website.