

Assessing Saudi Arabia's Nuclear Ambitions

The Pros and Cons amid Turbulent and Somewhat Promising Developments

Christian Koch

The Kingdom of Saudi Arabia (KSA) is currently pursuing a nuclear hedging policy. Its path is contingent mainly on three factors: the future of regional security arrangements with a special focus on Iran; the development of U.S.-Saudi relations, because, in the foreseeable future, the United States will remain the main security guarantor for the kingdom; and prestige, which has to be seen in the context of intra-Arab competition and rifts in the Arab world. However, financial challenges associated with any costly and technologically challenging nuclear program have to be taken into account. Favorable developments at the regional and international level could mitigate Riyadh's nuclear ambitions. All in all, Saudi Arabia is currently positioning itself so that it would not be left empty-handed in the event that Iran goes nuclear.

While there are indicators suggesting that Saudi Arabia is open to pursuing a military nuclear option, such an eventuality is at this stage certainly not a foregone conclusion. In this broad context, the focus of the POLICY FORUM series on challenges emanating from the entire range of chemical, biological, radiological and, last but not least, nuclear weapons (CBRN) as they relate to non-state actors/terrorist organizations will be presented in this POLICY FORUM issue. This includes both Saudi Arabia's domestic counterproliferation efforts in the nuclear area as well as Riyadh's attitude to dealing with terrorist organizations, especially as part of the Saudi-Iranian rivalry.

Background and Design of This Issue: Assessing Riyadh's Aspirations in the Context of Major Domestic, Regional and International Developments

As the future of the nuclear agreement concluded by the E3/EU+3 China, Russia and the United States with Iran (known as the Joint Comprehensive Plan of Action, JCPOA) is seriously in doubt, the question of whether the Kingdom of Saudi Arabia could also pursue the nuclear option is once again becoming relevant. After all, the Saudi Crown Prince and likely next King, Mohammed Bin Salman, has already publicly vowed that if the Islamic Republic of Iran obtained a nuclear capability, his country would have to do so as well: “[W]ithout a doubt if Iran developed a nuclear bomb, we will follow suit as soon as possible”, he told an American television program in 2018 (quoted in *Reuters*, March 15, 2018).

This was not the first warning issued to Tehran by the kingdom. The former head of intelligence, Prince Turki al-Faisal (quoted in Burke, June 29, 2011) stated already in 2011 that a nuclear Iran “would compel Saudi Arabia ... to pursue policies which could lead to untold and possibly

dramatic consequences”. And the murdered Saudi journalist Jamal Khashoggi (quoted in McDowall, July 21, 2015) made a similar observation when he stated in 2015:

I think Saudi Arabia would seriously try to get the bomb if Iran did. It's just like India and Pakistan. The Pakistanis said for years they didn't want one, but when India got it, so did they.

This POLICY FORUM issue argues that the Kingdom of Saudi Arabia is currently pursuing a nuclear hedging policy. Ultimately, a nuclear capability is certainly not outside the realm of possibility. But in the meantime, Riyadh's path is contingent on several developments to be discussed in the following in terms of their advantages and disadvantages. Foremost among them is the future of regional security characterized by the competitive setting, especially between Saudi Arabia and Iran (Fraihat, 2020; Ghattas, 2020), with the JCPOA multilateral nuclear agreement as the core issue.

The outlook for U.S.-Saudi relations is essential, too. Currently, the official Saudi position is that the regional environment is becoming increasingly threatening for the kingdom's security. At the same time, its traditional allies and the wider interna-

tional community are seen as not taking Saudi Arabia's threat perceptions seriously. This could push the kingdom to take its own steps in order to ensure its security. Prestige is identified as another important factor influencing Riyadh's course which is not regarded as already determined.

In addition, the domestic scene and incompatibilities between the reform programs on the one hand and the financial burdens associated with the nuclear option on the other matter too. Riyadh has committed itself to a number of international commitments in the nuclear area. A positive effect on its course can be expected from the de-escalation of the Saudi-Iranian rivalry, the improvement of relations with Washington and, finally, zonal arms reduction/disarmament proposals. Non-governmental (Track II) initiatives could play an important role in this respect.

Riyadh's Civilian Nuclear Energy Plans

As part of its “Vision 2030” economic diversification and energy plans, Saudi Arabia has laid out an ambitious program to construct 16 nuclear power reactors by 2030. The main initial objective for such an ambitious effort was to free up oil pro-

duction for exports instead of using it for domestic power production. Electricity consumption has been rising at a rate of five to eight percent annually, causing the country to consume up to a quarter of its oil production for domestic purposes (Gately/Al-Yousef/Al-Sheikh, 2011). With its plan, Saudi Arabia's nuclear energy is to provide about 20 percent of total electricity consumption. Smaller reactors are said to be planned for use for water desalination, which requires large amounts of power. Producing nuclear energy will thus not only allow the kingdom to maximize its oil and gas balance of trade, but will also generate electricity at a fixed cost rather than having prices fluctuate with energy prices.

In order to have a foundation for a civilian nuclear program, Saudi Arabia has invested on a large scale in developing a nuclear infrastructure. This includes the 2008 establishment of the King Abdullah City for Nuclear and Renewable Energy (KA-CARE). In addition to smaller organizations in the kingdom such as the Atomic Energy Research Institute in Riyadh, KA-CARE is the key institution in charge of nuclear development (Burkhard et al., March 30, 2017: 25-34).

A January 2019 report from the Integrated Nuclear Infrastructure Review Commission of the International Atomic Energy Agency (IAEA) states that Saudi Arabia has “made significant progress in the development of its nuclear power infrastructure” (quoted in Dyck, January 25, 2019). Despite reports to the contrary (Tirone, April 3, 2019), a small-scale nuclear research reactor based on an Argentinian design and able to produce energy in the low-kilowatt range is being built but has not been completed at the time of writing in mid-2020.

Compared to the plans for nuclear power plants announced in 2010, progress on the ground has been slow. First tenders for the construction of the reactors were supposed to be issued in 2019. Yet that process has been delayed as the kingdom continues its discussions with a number of potential vendors, including the United States, China, Russia, France and South

Korea. Agreements on the construction of nuclear reactors (Burkhard et al., March 30, 2017: 18–25) have been signed with Russia and France, while additional agreements covering matters such as scientific cooperation have also been signed with the U.S. (2008), South Korea (2011), China (2012 and 2014), Jordan (2014), Russia (2015), France (2015) and Argentina (2015). Given the significance Riyadh is attaching to its plans, it has proceeded at multiple levels in order to not put all of its eggs in one basket, but to be able to choose among favorable offers at an opportune moment (al-Tamimi, 2013).

Saudi Arabia's Commitments and International Concerns Over Its Nuclear Course

Riyadh's Broad Range of International Commitments

As of mid-2020, there seems to be no clear evidence to suggest a covert Saudi nuclear program or that the kingdom has violated any of its international commitments when it comes to the broad range of nuclear-related treaties/agreements encompassing measures in the nuclear/radiological realm of security and safety as well as traditional non-proliferation and counterterrorism tools. In general, the kingdom is a signatory to the International Convention for the Suppression of Acts of Nuclear Terrorism and the Convention on the Physical Protection of Nuclear Material, while the KSA also supports the Global Initiative to Combat Nuclear Terrorism. As to nuclear theft and sabotage, Saudi Arabia has improved its rankings in recent years, as the editions of the “Nuclear Security Index” published by the Nuclear Threat Initiative (NTI) show.

Here, the kingdom ranks 66th out of 154 countries overall, first out of 154 as far as global norms are concerned, 74th out of 154 in terms of the risk environment and 100th out of 154 regarding domestic commitments and capacity. In all categories an upward trend was visible compared to the 2012 and 2016 reporting years (NTI, 2018). In the most recent NTI edition

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(NTI, 2020), Saudi Arabia is still ranked 66th. No additional progress was recorded in 2018 on three issues: nuclear and radiological security, countering nuclear and radiological smuggling, and participation in joint statements. Nonetheless, several education and training initiatives within the kingdom have been recognized, including the organization of a variety of workshops with partners such as the IAEA on issues of nuclear security, safeguards and capacity-building (Kutschesfahani/Davenport/Connolly, 2018: 81).

While the potential exists for extremist groups getting their hands on radioactive material alongside a definite determination to use such materials whenever possible, the likelihood remains low. For states by and large remain committed to preventing that instance from happening through instruments like UN Security Council Resolution 1540 (2004) which prohibits support for non-state actors (Alani, 2007). At the government level, a Strategic Partnership Agreement is in place with the Radiation and Nuclear Safety Authority in Finland. Riyadh also remains a strong supporter for the creation of the specialized nuclear counterterrorism center, to be located within the headquarters of the IAEA, and has provided an initial amount of \$10 million for its establishment (Statement of the Head of Delegation, 16-20 September, 2019).

The often-heard position that Saudi Arabia would actively provide support for such groups does not reflect the current domestic changes occurring in the country; here the agenda has shifted away from its more problematic Wahhabi roots and links to Islamic extremism. Crown Prince Mohammed has been emphatic that his country wants to present what he has repeatedly referred to as “moderate Islam”. Beyond mere words he has indeed adopted tough measures to reduce the influence of the religious establishment on Saudi policies.

With regard to the traditional non-proliferation and counterterrorism tools, Saudi Arabia signed the Non-Proliferation Treaty in 1988 and the Small Arms Protocol in 2005. The kingdom has not accepted two

basic instruments: first, the stricter protocol adopted by the International Atomic Energy Agency on nuclear safeguards in 2005. This implies that Riyadh has so far rejected the rules and procedures that would allow IAEA inspectors to access potential sites of interest. Second, the kingdom has expressed reservations about signing the Additional Protocol to the NPT (discussion with Saudi official, Riyadh, November 2018; see also Squassoni, March 21, 2018). Its set of rules would be stricter than that of the Comprehensive Safeguards Agreement that the IAEA is negotiating with Saudi Arabia (Tirone, September 17, 2019).

International Concerns

Although there are no indications that Saudi Arabia is actively pursuing a military nuclear program, the kingdom has continued its efforts to establish a scientific research program as a first step toward some indigenous nuclear capacity. Even among its Western partners these activities have raised concerns about a covert program.

To be more specific: Following a report in *The Wall Street Journal* that the kingdom with Chinese assistance had constructed a facility to extract uranium yellowcake from uranium ore (Strobel/Gordon/Schwartz (August 4, 2020), the German government immediately issued a statement calling on Riyadh “to fully comply” with its NPT obligations and that “its nuclear program is subject to the safeguards of the IAEA” (quotations in Nia, August 12, 2020). The facility in the northwest of the country near the city of al-Uyaynah has been kept secret. But it was known that Riyadh had stated in 2017 that it would extract uranium as a first step toward self-sufficiency in producing nuclear fuel (Westall, October 30, 2017). In response to the report, the Saudi Energy Ministry has “categorically” denied the report that the country has built a uranium ore milling facility. The Ministry “admitted to contracting with Chinese companies for uranium exploration in Saudi Arabia” (Nia, August 12, 2020).

On a more ominous front, Saudi Arabia also maintains close ties with the military establishment in Pakistan, leading to sug-

gestions that an agreement has been put in place where Islamabad would supply sensitive nuclear materials and know-how in the event that the kingdom felt the need for such support.

Also, the expansion into nuclear research coupled with other developments in the military sphere inside the kingdom have heightened concerns. For example, a facility was uncovered in the desert for the possible purpose of manufacturing ballistic missiles (Sonne, January 23, 2019). The kingdom is already in possession of Chinese-made CCS-2 and DF3-A missiles, purchased in the 1980s, which could be refitted to make them nuclear-capable. In 2017, Saudi Arabia and China signed an agreement to build a facility for unmanned aerial vehicles (UAVs), which would be Beijing’s first overseas military manufacturing site. This accord is a sign that Saudi Arabia intent on strengthening its cooperation with China on sensitive military technology (*The Economic Times*, March 26, 2017).

Concerns have also been raised that the KSA is foregoing on-the-ground monitoring to complete the above-mentioned small research reactor before IAEA inspections. Yet reports have indicated there have also been instances where such inspection procedures were completed after the work had been done (Tirone, May 21, 2019). In this context, Tirone quotes Sharon Squassoni of George Washington University: “Saudi Arabia’s agreement right now is completely minimal, out-of-date, and unequal to the task of providing the kind of transparency that the IAEA and the other member states need about Saudi Arabia’s nuclear program.”

In a broader sense Riyadh plans to develop an indigenous arms industry as part of its “Vision 2030” economic diversification project. Finally, proliferation concerns have grown with the erratic and unpredictable power style associated with the rise of Crown Prince Mohammed Bin Salman and the change of Saudi Arabia’s foreign policy identity from a traditional regional coordinator and facilitator to an actor which has increasingly been using military means.

Central Factors Intensifying Saudi Arabia's Nuclear Ambitions

The Substance and Fate of the JCPOA as the Core Issue of Saudi-Iranian Rivalry

Initially, Saudi Arabia officially voiced its support for the JCPOA, stating that if implemented fully the accord would enhance the security of the region: Yet there were always concerns that Iran was using the accord simply to gain sufficient time for further research and development of its nuclear plans. The so-called sunset clauses of the JCPOA were seen as additional proof that an Iranian nuclear program was not off the table. Moreover, following the U.S. withdrawal from the agreement on May 8, 2018 under the Donald Trump administration, the implementation of the JCPOA and even its continued existence has been thrown into further doubt and has increased the likelihood that Tehran may resume its nuclear activities. As a result, a potential Iranian nuclear capability cannot be ignored, with Saudi Arabia determined to be able to respond and not get caught empty-handed.

With Iran under the maximum pressure campaign of the United States, the leadership in Tehran has made it clear that its willingness to remain within the JCPOA is limited. Its verbal threats were followed by concrete deeds, i.e., five deliberate violations culminating in the statement that “Iran’s nuclear program will have no limitations in production, including enrichment capacity” (quoted in Rubin et al., January 6, 2020). But at the same time Tehran vowed to continue its cooperation with the IAEA if the rest of the signatories were to deliver on the sanctions relief that was promised to Tehran. The three European parties to the agreement – France, Germany and the United Kingdom – have continuously reiterated their commitment to upholding the JCPOA while at the same time ensuring that Iran never develops a nuclear weapon. This continues to be one of their fundamental security priorities (E3 statement on the JCPOA: 12 January 2020).

In January 2020, the three European signatories temporarily activated the dispute resolution mechanism of the agreement because in their view Iran was failing to live up to its commitments of the deal (E3 foreign ministers’ statement on JCPOA: 14 January 2020). At the same time, they noted that Europeans had “fully upheld” their “JCPOA commitments, including sanctions-lifting as foreseen under the terms of the agreement”. Yet, during his visit to Tehran on February 3 the EU High Representative, Josep Borrell, announced the suspension of the dispute resolution mechanism (Finaud/Gärtner/Kubbig, February 14/March 5, 2020). Nevertheless, Europe’s economic commitments are entirely unsatisfactory: Its so-called INSTEX mechanism for processing economic transactions with Iran led only to a first transaction in March 2020, almost two years after the U.S. withdrawal from the deal (Brzozowski, April 1, 2020).

Thus, it remains highly unlikely that European economic efforts to save the JCPOA will be sufficient to keep Iran inside the agreement. Nevertheless both the foreign ministers of the E3 as well as the High Representative have reaffirmed “once again” by mid-2020 their “readiness to work determinedly to preserve the nuclear Agreement” (quoted in Federal Foreign Office, July 4, 2020; see also JCPOA: Statement by the High Representative, July 3, 2020).

While Iran at this stage is unlikely to simply break the agreement and make a full-fledged push toward a nuclear bomb, other steps might very well follow such as a near-20 percent enrichment or even crossing that threshold and making uranium weapons possible. Tehran might at some point put its threats into effect and, as a last-resort decision, leave the Nuclear Non-Proliferation Treaty (NPT). To be sure, Saudi Arabia will watch all developments by the Islamic Republic closely so as not to be caught flat-footed. As has been argued in another study: “If the JCPOA ends prematurely, Iran’s actions and those of the United States and the UN Security Council to constrain Iran will likely dictate whether the nuclear program is seen as a threat that Saudi Arabia must match.”

(Burkhard et al., March 30, 2017: 5)

The Uncertain Role of the U.S. as the Traditional Security Provider for Saudi Arabia

A second key factor in any future nuclear plans for Saudi Arabia is the relationship with the United States. Despite its long and close ties since the 1940s, Riyadh feels increasingly exposed and without reliable protection from the United States. The uncertainty has grown since the U.S.-led invasion of Iraq in 2003, which the kingdom strenuously argued against. In the invasion’s aftermath, Saudi Arabia has witnessed Iran spreading its influence throughout the Arab world, to the point that to a greater and greater extent the kingdom feels it is being surrounded by Tehran and its proxies. Already in September 2005, then Saudi Foreign Minister Saud al-Faisal told the U.S. Council on Foreign Relations: “We fought a war together to keep Iran out of Iraq after Iraq was driven out of Kuwait. Now we are handing the whole country over to Iran without reason.” (Quoted in Cole, October 30, 2006).

Riyadh’s concern over the direction and outlook of its strategic alliance with the United States has deepened with both the Obama and the Trump administrations as a result of such actions as the signing of the JCPOA under President Barack Obama and the lack of a response by Washington under his successor to the attack on Saudi oil processing facilities in September 2019. A case in point is the announcement by the U.S. Defense Department in early May 2020 that it would be withdrawing some of the Patriot missile batteries that were placed in the kingdom following the attacks on the Saudi oil installations less than a year earlier.

This has added to existing doubts about U.S. security commitment to the kingdom. Steps like these could further fuel an arms race in the region as Saudi Arabia continues to match Iran’s capabilities across the board, i.e., not only in the nuclear field, but also with respect to ballistic missiles, drone technology and space (Lubold/Bender, May 7, 2020; Dorsey, May 12, 2020). The fact that Tehran has been able



to launch its first military reconnaissance satellite despite being under extensive sanctions was in the bilateral competitive context of course noticed in the kingdom (discussion with Saudi analyst, May 2020).

Alongside rising domestic opposition in the U.S. toward the kingdom, Riyadh is thus starting to look seriously into options involving the selection of partners with whom its security could be best ensured. However, given the traditionally close relationship in place with the United States, Saudi Arabia would prefer some form of arrangement with Washington. Yet the U.S. has already made clear that access to American nuclear technology is dependent on Saudi Arabia signing the Additional Protocol of the IAEA allowing for snap inspections of its facilities (*Reuters*, September 17, 2019).

The issue has become more complicated in recent times as tensions in the U.S.-Saudi relations have intensified due to the KSA-led military campaign in Yemen, the killing of the Saudi journalist Jamal Khashoggi in the kingdom's consulate in Istanbul, and Riyadh's decision in March 2020 to increase its oil production – a move that, combined with the sudden collapse in oil demand due to the outbreak of the COVID-19 pandemic (Mazzetti/Wong, July 1, 2020), threatened to put a lot of American shale oil producers out of business. Partly in response, legislation from the U.S. Congress that would bar financing of nuclear technology transfers to Saudi Arabia has been enacted (Gramer, July 30, 2019; see also Kheel, April 7, 2019).

Given that other countries than the United States are likely to pursue nuclear cooperation on a more commercial basis without such stringent conditions, Riyadh has some leeway for pursuing its own path. For Saudi Arabia has emphasized that “unjustified restrictions on the intrinsic rights of peaceful nuclear technology” do exist and that these could “negatively affect even joint cooperation programs related to nuclear security itself” (Yamani, April 1, 2016). In the same vein, Richard Russell (2001: 69) once argued not to assume that the kingdom would not pursue nuclear weapons out of deference to the U.S. relationship.

Prestige Matters in the Context of Intra-Arab Competition

A third factor determining Riyadh's nuclear ambition is prestige: The kingdom sees itself as a key leader of the Arab world and believes that the future direction of the Middle East cannot be shaped without it. After all, the Gulf and the Middle East is Riyadh's neighborhood. The notion of prestige has in recent times been tied closely to the personality issue of Saudi leadership and the rising nationalism around which new domestic consensus making has been structured (Alhussein, June 19, 2019; see also Blumberg, 2020).

To be sure, the domestic context inside Saudi Arabia has shifted over the past years: The kingdom has moved from a horizontal decision-making system in which many princes had a role within the system to a much more concentrated vertical line centered on the current crown prince. At the regional level, competition exists beyond Iran among the Gulf states with respect to the civilian nuclear projects seen as prestigious cutting-edge technology: With the United Arab Emirates (UAE) becoming the first Arab state to operationalize its civilian nuclear reactor in August 2020 (Yee, August 1, 2020), Saudi Arabia certainly does not want to be perceived by its Arab Gulf neighbor as being backward.

This applies to Riyadh's stance in general. In December 2015, for instance, the German Intelligence Service BND (quoted in *Deutsche Welle*, December 2, 2015) warned that Saudi Arabia was shifting toward an “impulsive policy of intervention” and that the kingdom was “prepared to take unprecedented military, financial, and political risks to avoid falling behind in regional politics”.

In addition, the Gulf region is currently undergoing an intense and broad re-ordering of its internal relationships. For one, the future of the Gulf Cooperation Council (GCC) is very much in doubt. This is highlighted by the continuing rift between Saudi Arabia, the UAE and Bahrain on one side and Qatar on the other, with Oman as the “not so neutral” mediator (quoted in Casteller/Müller, 2020). At the heart of the conflict is a fundamental dispute

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over the role of political Islam in the transitions occurring in many parts of the Middle East, for example in Egypt, Syria and Libya. The UAE in particular views the change in leadership in Saudi Arabia as fundamental in ensuring that a form of secular autocratic stability prevails in the region. Second, however, Saudi Arabia and the UAE do not see eye-to-eye when it comes to the current situation in Yemen (Roberts, 2020).

Riyadh wants to extricate itself from the Yemen quagmire by supporting a ceasefire that maintains the territorial integrity of the state. The UAE, however, supports secessionist tendencies for southern Yemen as a way to contain the Houthi threat and ensure that the war does not spread regionally. Such developments need to be kept in mind when considering Riyadh's proliferation calculations as the stability of its immediate neighborhood remains the kingdom's foremost concern.

Key Obstacles Hampering or Even Inhibiting the Kingdom's Nuclear Aspirations

Improvement of Iran-related Developments and the Saudi Relationship with the U.S. Is Possible

Regional developments remain volatile and there is no certainty that Saudi Arabia's main competitor Iran will in fact obtain a nuclear capability. Tehran has always stated that it is merely pursuing a civilian strategy and that a religious ruling issued by the Supreme Leader forbids nuclear weapons. Saudi Arabia's indication that it will follow Iran's path is therefore somewhat contingent on the Islamic Republic actually pursuing such a route. Even if its major rival was to unequivocally pursue a nuclear capability, there is still the option that Israel might act to pre-empt this possibility.

On the U.S. front, changing circumstances could lead to the re-strengthening of relations with Saudi Arabia and thus assuage fears that Riyadh is being abandoned by

Washington. The degree to which the kingdom sees its threat perception as having been dealt with in a serious way will determine how much investment it will make in a nuclear program.

For the moment, talks with the United States over the 123 Agreement, according to which the U.S. would provide extensive assistance to the building of a Saudi civilian nuclear program, have stalled (Gramer, July 30, 2019). The discussion of the 123 Agreement illustrates that the "possible conflict of goals between a non-discriminatory export policy and the prevention/strict regulation of building enrichment and plutonium separation/reprocessing facilities" has not been resolved (Kubbig/Nuclear Forum, 2018; see also Kubbig, 2018: 4). The issue is further complicated by the fact – and here the intra-Arab competition is present again – that the 123 Agreement signed between the United States and the United Arab Emirates states that no other Middle Eastern state should receive more favorable terms.

Overall, there is great reluctance in Saudi Arabia to go down the route of the United Arab Emirates and forego enrichment and reprocessing activities which would be included in the 123 Agreement. With the JCPOA as a model, Saudi Arabia has insisted that it be given the same rights as Iran, although the issue of rights and subsequent commitments to international protocols would need to be dealt with in the wider context of Saudi-Iran relations and the possibility of a follow-up process to the current JCPOA.

Even with respect to Riyadh's ore-related activities mentioned above, which have sparked international concerns, going nuclear would mean jeopardizing any remaining U.S. security guarantees (Wolf, May 14, 2015) – an implication that might still serve as a nonproliferation tool vis-à-vis Riyadh. This would probably be even more the case if President Trump were not reelected. As of mid-2020, this possibility cannot be excluded. The case in point is a heated UN meeting on Iran on June 26 which demonstrated "world powers' fading fear" in confronting U.S. Secretary of State Mike Pompeo, who chal-

lenged the UN Security Council to extend a U.N. arms embargo that is due to expire in October 2020 (Lynch/Gramer, June 30, 2020).

Building Up a Military Base for a Credible Nuclear Option Is Costly, Takes Time and Is Aggravated by the Current Double Crisis

Saudi Arabia does not have a diversified industrial base, especially in the military area. As a result, it is questionable whether it can quickly put together an effective indigenous nuclear program. While there has been progress in the education and training sectors (as mentioned above), the efforts in the United Arab Emirates have shown that building up indigenous expertise and capability is a long and difficult process (Krane, March 2, 2020). In addition to human resources, the technical challenges involved in building a nuclear weapon should not be underestimated either. As Albert Wolf (May 14, 2015) pointed out, more than half of the nuclear projects for military purposes announced by countries since the 1970s have not materialized. In the current environment, it is even more difficult for Saudi Arabia to hide a clandestine program if that route is chosen, since international public scrutiny of the kingdom has increased in recent years.

The cost of a full-fledged nuclear weapons program, which in general cannot be ignored, would weigh especially heavily in the current situation: In the first half of 2020, Saudi Arabia found itself faced with a twofold financial and economic crisis due to the impact of the COVID-19 pandemic and the collapse of oil prices resulting from surging production and plunging worldwide demand. With Saudi Finance Minister Mohammed al-Jaadan announcing "painful" and "drastic" measures (AFP, May 3, 2020), the kingdom lost 50 percent of its oil revenues in the first half of 2020, while Central Bank reserves have fallen at the fastest rate in over 20 years. The kingdom still depends for the majority of its income on oil revenues and due to rising expenditures requires a break-even price of oil of around \$80/barrel. With oil prices hovering around the \$30/barrel



in early 2020, the government is facing a rising budget deficit that can only initially be met by fiscal consolidation, subsidies removal and increased fees and taxes (Rashad/Barbuscia, May 11, 2020; al-Shamari, May 4, 2020; Slav, May 11, 2020; *The Statesman*, May 11, 2020).

While in the past oil revenues have tended to recover, the prolonged impact of COVID-19 on the world economy is likely to result in the economic repercussions being felt for quite some time. In the kingdom this has already led to the delay or cancellation of a number of high-profile projects. The years of unmitigated spending across the board are simply over for Saudi Arabia. Similarly, the kingdom is fully aware that its economic survival is closely tied to a successful economic diversification plan as embodied in the “Vision 2030” – especially in light of a rising young generation that is increasingly pushing into the local labor market and questioning the social contract of the past. For such a long-term plan to be implemented, however, strong connections to the rest of the world economy are required; yet pursuing a foreseeable highly contentious nuclear program would likely result for Saudi Arabia in splendid isolation.

Although the economic crisis and heightened scrutiny are placing restrictions on the Saudi nuclear option, they do not guarantee that the kingdom will forego this route if the leadership decides that it has no other choice. To shorten the time period required, there is still the possibility of obtaining a nuclear device via Pakistan, with some reports suggesting that such an arrangement might already be in place (Urban, November 6, 2013). Crown Prince Mohammed Bin Salman has undertaken several trips to Islamabad and it can be assumed that nuclear issues were discussed.

Yet Pakistan, too, would have to think seriously whether it wants to risk international isolation as a result of providing proliferation assistance to Saudi Arabia. Moreover, Islamabad has not been pursuing the same policies as Riyadh as of late and has, for example, refused to provide troops to the Saudi-led coalition fighting in Yemen. Thus, domestic opposition from within Pakistan must be considered as an imped-

ing factor. At the same time, this country is still a useful link for the kingdom to obtain some sensitive equipment and know-how.

Both Escalatory and De-escalatory Developments in the Region Are Possible with a WMDFZ as Its Nucleus

Destabilizing trends in the region with the Saudi-Iranian rivalry as their most prominent feature could grow and find expression in strong support for non-state actors or terrorist groups. This development has gained ascendancy amid the widespread turmoil that the Middle East has faced since the advent of the Arab Spring. There have been an increased number of quasi-failed states in the region (Lebanon, Syria, Libya and Yemen). The same applies to the proliferation of proxy forces that have challenged central government authority; examples include Hezbollah in Lebanon, the Houthis in Yemen and the Popular Mobilization Forces in Iraq. Collaboration among non-state actors with the intention of forcing an American exit from the region has grown in the aftermath of the U.S. assassination of Iranian General Qasim Suleimani in January 2020.

Intensified regional tensions might increase Iran's and Saudi Arabia's interest in providing even more support to proxy forces, especially if the sectarian battle between the two sides escalates further. This could include assistance by Riyadh to, for example, the Mujaheddin-e-Khalq or Tehran using its sectarian militias to attack the so-called enemies if the Islamic Republic finds itself under increased attack and close to a regime collapse. Following the COVID-19 pandemic outbreak and the consequences of bringing daily life to a virtual standstill throughout the globe, extremist groups could also concentrate their energies on pursuing a biological alternative to the widely feared nuclear option – difficult as the path of pursuing a biological weapon may be (Blum/Neumann, June 22, 2020).

At the same time, the prospects for some form of regional de-escalation, especially between Riyadh and Tehran, should not be

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» *By and large, Riyadh is ready to support initiatives that can contribute to greater confidence building in the region, although it also sees other states, first and foremost Iran, as bearing the primary responsibility for assuring both the regional and the international community of Tebran's compliance and adherence to any agreement.* «

underestimated. Despite the tense situation and the indications that little progress is likely to occur to overcome the current bilateral stalemate, there is nevertheless some room for optimism: Some form of dialogue mechanism among regional states in the Gulf and the Middle East is still possible. This includes recent signals at the government level and initiatives being launched at the civil society level.

Following the attacks on vessels in the vicinity of the Strait of Hormuz, the missile strikes on Saudi oil installations and the killing of Iranian General Qassim Soleimani by a U.S. drone strike, the United Arab Emirates took the lead in calling for regional measures of de-escalation to be implemented. The UAE's Minister of State for Foreign Affairs, Anwar Gargash, stated that de-escalation was "wise and necessary" and that it was "essential that the region pulls back from the current and troubling tensions" (Abueish, January 8, 2020). In the wake of the COVID-19 pandemic, Gargash (quoted in *Middle East Monitor*, May 8, 2020) emphasized in May 2020:

The region, like all regions in the world, is going to be financially and politically weaker. We would be wise to think about our development models, about de-escalation and to try some problem-solving.

In this context, the emphasis by regional actors has begun to shift to greater emphasis on peace/security aspects rather than the disarmament angle which had been favored by Middle Eastern states in the past. Saudi Arabia decided not to take immediate retaliatory action against Iran following the attacks on its oil installations and has instead engaged in talks with third parties such as Iraq and Pakistan to relay messages that Riyadh is keen to avoid a further escalation of tensions (Fassihi/Hubbard, October 4, 2019). What this indicates is an acute awareness of the dangers posed to the kingdom if regional tensions were to escalate into open confrontation. In the context of the current COVID-19 pandemic, there has been a further awareness of the overall fragility of the situation with domestic issues of health and economic recovery being prioritized over existing regional rivalries.

Whether the shift will prove to be of a more significant nature remains to be seen. A relatively quick containment of the COVID-19 spread alongside near-term economic rejuvenation would likely initiate renewed instances of confrontation. A prolonged period of uncertainty over the pandemic could at the same time provide breathing space in which the transition to a different mode of thinking in the region takes stronger roots.

There have been positive responses from the kingdom in the past to discussions regarding a zone free from weapons of mass destruction in the Middle East (WMD-FZ), especially nuclear weapons (see in greater detail Koch/Finaud/Kubbig, 2018). The former Intelligence Chief Prince Turki al-Faisal (2013: 7) has called for the establishment of such a zone, writing already in 2013:

Saudi Arabia firmly believes that it is in every nation's interest, including Israel's and Iran's, not to possess nuclear weapons. This is why, through various initiatives, we are sending messages to Iran that it is their right, as it is any nation's right, and as we ourselves are doing, to develop a civilian nuclear program, but that trying to parlay that program into nuclear weapons is a dead end, and that wiser choices will result in wider riches. A WMD-FZ is the best means to get Iran and Israel to give up nuclear weapons.

At the same time, Prince Turki also warned that failure to follow through on the free zone concept would "incentivize all countries in the area to undertake what may prove to be a fateful decision that will expand nuclear proliferation rather than confirm security and peace" (Prince Turki al Faisal [2013: 10]). What this suggests is that the kingdom sees the nuclear as well as the disarmament issues very much as the responsibility of the international community.

The readiness of the kingdom to adopt the concept of a WMD-Free Zone and even consider proposals for a zonal initiative restricted initially to the Gulf region (Koch/Finaud/Kubbig, 2018) indicate a rather pragmatic course being pursued on the larger set of regional security issues including disarmament, arms control mea-



tures and zonal WMD arrangements.

By and large, Riyadh is ready to support initiatives that can contribute to greater confidence building in the region, although it also sees other states, first and foremost Iran, as bearing the primary responsibility for assuring both the regional and the international community of Tehran's compliance and adherence to any agreement. Against this backdrop, it will be interesting to see what role Saudi Arabia decides to play in the context of the planned conference process, with its annual meetings on creating a WMD-Free Zone in the Middle East/Gulf. Constructive leadership will be needed, since the first meeting which took place in New York on November 18–22, 2019 was not able to produce a draft for a legally binding treaty (Masterson, 2020: 36).

In addition, the kingdom insists that Saudi Arabia, along with other GCC states, should have a seat at the table in any deliberations that concern their security interests. One main point of criticism regarding the JCPOA has always been that the agreement was negotiated by the EU/E3+3 and Iran, with the Arab Gulf States on the outside looking on. In current discussions about the possibility of renewed negotiations of a JCPOA+ agreement, some form of Arab Gulf states' involvement is a non-negotiable factor.

An additional component is the involvement of Saudi Arabia, mostly at the non-official level, in a number of regional Track II initiatives that seek to provide a new basis for better understanding and coordination between regional actors, primarily Saudi Arabia and Iran. In a representative article for the *New York Times*, for example, the Chairman of the Gulf Research Center in Jeddah, Saudi Arabia, Abdulaziz Sager, and the former Iranian negotiator Hossein Mousavian argued: The leaders of both countries should engage in constructive dialogue, as “[s]ustainable peace and security require good bilateral relations and regional cooperation between Tehran and Riyadh” (Mousavian/Sager, May 14, 2019).

Saudi Arabia continues to be interested in discussions about how to bring about a calming of tensions and the requirements for some form of regional security com-

ponent; this has resulted in a number of constructive forward-looking suggestions. Examples of recent initiatives included those sponsored by the International Crisis Group, the Shaikh Group, and the Tafahum Project (see <https://www.grc.net/projects>) on a Security Roadmap for West Asia and the Arabian Peninsula of the Gulf Research Center Foundation and the Center for Applied Research in Partnership with the Orient (CARPO).

One final dimension deserves special attention in view of the kingdom's overall mixed record on improvements in certain areas: the relevance of nuclear/radiological security and safety as a counterproliferation tool when it comes to terrorist organizations and their interest in acquiring CBRN. Here again the international community with its established institutions, (legally binding) measures, procedures and dialogue forums is very much called for after the leadership of the Obama administration in this area has not been continued by his successor.

Conclusions and Recommendations for a Constructive Way Forward

While there are indicators suggesting that Saudi Arabia is open to pursuing a military nuclear option, such an eventuality is at this stage certainly not a foregone conclusion. There is no cascade theory which assumes an automatic trigger leading Saudi Arabia to go nuclear. To be sure, the volatile regional security environment suggests at first glance that the kingdom has little choice but to go down this route. Yet, raising the option of going nuclear is also a way for Saudi Arabia to signal to the international community that Riyadh's security concerns should be taken more seriously than in the past. There are many avenues through which the Saudi leadership can be engaged when it comes to regional Gulf and Middle Eastern security. It is time for those roads to be taken.

The key to possibly preventing Saudi Arabia from deciding on a nuclear path will be the emergence of viable security concepts around which the actors in the region can rally. In this context, the role taken on by the United States will be critical as far as

Saudi Arabia is concerned. The termination of the Nuclear Security Summits by the Trump administration, rising tensions between the U.S. on the one hand and Russia as well as China on the other, plus Washington's continued withdrawal from central arms control/confidence-building agreements, most recently Open Skies, have this in common: They all underline the degree to which the United States is no longer willing to rely on and lead in forging new and strengthening existing multilateral arrangements in this area.

While a vacuum is emerging for a security umbrella covering Saudi Arabia, it will be vital for other actors to promote alternative and comprehensive arrangements that will prevent the kingdom from feeling the need to go on a unilateral path. European countries such as the E3, i.e., France, Germany and the United Kingdom that negotiated the Islamic Republic nuclear deal could play a significant role in this regard. One possibility would be to initiate discussions with Iran over a follow-up agreement to the JCPOA, despite the many suggestions that Tehran would place little trust in a new round of negotiations. Proposals for such a path exist (Kubbig/Finaud, June 2018) and it is an effort that should be pursued at the political level too.

Indeed, so far the Europeans, weak actors when it comes to economics, have shown a remarkable resilience in their indispensable role of looking for political compromise among the vital players and in view of the growing complexity of Iran-related issues (Tehran is accused of hiding suspected nuclear activity and the U.S.-led effort to extend the arms embargo already mentioned): Germany, France, and the United Kingdom “managed to maintain their unity at a meeting on [June 19] at which they agreed to keep the nuclear deal alive, oppose United States. plans for the snapback of sanctions and possibly limit the lifting of the conventional arms embargo on Iran” (Wintour, June 24, 2020).

Again, the as yet undecided presidential election in the United States will become important in one way or the other – the relatively calm reactions of the Iranian leadership to the explosions, especially at the Natanz nuclear facility in mid-2020, may indicate that Tehran considers the



re-election of President Trump to be in doubt. Wintour ends his article by quoting a foreign policy adviser to Donald Trump's challenger Joe Biden:

It is simply impractical to think that the US will provide significant sanctions relief without assurances that Iran will immediately begin negotiations on a follow-on agreement that at least extends the timelines of the deal and addresses issues of verification and intercontinental ballistic missiles.

The election outcome will show to what extent the possible victory of a new U.S. president will make a difference compared with Donald Trump. If Joe Biden were to become the new president, the chances are not too bad that he will be more constructive and balanced toward the Gulf states, the Kingdom of Saudi Arabia included, than the current administration. This would certainly affect the future of the JCPOA since Biden was intimately involved in negotiating it.

And it remains to be seen whether CBRN-related issues will regain the priority they had during the Obama era with its Nuclear Security Summits. ■

The Authors

Dr. Christian Koch is a Senior Advisor with the Bussola Institute in Brussels.

Dr. Bernd W. Kubbig is the founder of the ACADEMIC PEACE ORCHESTRA MIDDLE EAST (APOME) – see <http://www.academicpeaceorchestra.com> – and Editor of the blue POLICY FORUM series (see <http://www.academicpeaceorchestra.com>).

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