Toward a Nuclear Middle East?

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Many decision makers and analysts in Israel and around the world contend that Iran's attainment of a military nuclear capability will increase nuclear weapons proliferation in the Middle East and create a multi-polar nuclear system in the region.[1] Saudi Arabia, Turkey, and Egypt are considered the main candidates to go nuclear in order to balance Iran's nuclear power. This article will test this argument primarily from the perspective of the motivations and capabilities that may spur these countries to develop a nuclear arms infrastructure in the long term (perhaps beginning with the development of a civilian nuclear program), or to attempt to obtain an off-the-shelf nuclear deterrent in the short term; other constraints and difficulties they would have to overcome will also be assessed. The analysis leads to the conclusion that Saudi Arabia is the regional power most likely to go nuclear. Yet even if "only" Iran and Saudi Arabia obtain nuclear capability, a new strategic situation will be created in the Middle East, with far reaching consequences for Israel.

The process of building an independent nuclear capability is prolonged and demanding, and countries pursuing this long term option will need to find a solution for the short and medium terms, once the Iranian nuclear program is completed. On the other hand, in addition to its exorbitant cost, attaining an off the shelf capability demands that certain conditions be met before a country will agree to sell the product, as well as be able to withstand the pressure not to do so. This process often entails forging stronger ties with countries that are considered as pariah states, which itself can incur political and defense costs. This solution to the problem of a nuclear Iran,

therefore, is far from ideal. Furthermore, if Saudi Arabia, Turkey, and Egypt join the nuclear arms race, even if the process is ultimately not completed, other countries in the region will feel threatened, and this in turn will have a destabilizing effect on the Middle East.

Over the past decade, a number of Middle East countries have declared their interest in a civilian nuclear infrastructure, and this could subsequently constitute a basis for a military nuclear program. Iraq has expressed interest in civilian nuclear development under IAEA supervision. Jordan likewise wants to launch a nuclear program in order to meet its growing energy needs, despite the considerable economic and political difficulties involved, and thus far has refused to concede its right to enrich uranium on its territory. The Gulf states, led by the United Arab Emirates, have also in recent years begun to forge ties with outside actors aimed at developing a nuclear program on their territory, and have even started to set up the technical and scientific infrastructure necessary for this purpose.

Short to Medium Term

The Iranian nuclear program has not progressed at the rate at which Western intelligence organizations had previously believed.[2] Nonetheless, certainty that Iran is trying to achieve a breakthrough in its nuclear capability, whether through an Iranian declaration to this effect or an Iranian nuclear test, would enhance the sense of threat among Iran's neighbors. The threat, stemming from Iran's ambition to become the leading power in the region, would be perceived as particularly worrisome by Saudi Arabia, Iran's main ideological and geo-strategic rival in the region. Thus in face of such a development, Saudi Arabia would likely not remain indifferent. Saudi Arabia also possesses economic means that would enable it to respond relatively quickly to the looming threat.

Officials in Saudi Arabia, which in recent years has undertaken the largest conventional military rearmament program in its history, have declared more than once their opposition to nuclear weapons development. They assert they are concentrating on a civilian nuclear program aimed at meeting energy needs and reducing their dependence on oil, but Saudi Arabia has in fact also considered the nuclear arms route. To this end it has tightened its cooperation with a number of countries, headed by Pakistan,

with which Saudi Arabia has cooperated militarily for many years. Saudi Arabia also financed part of the Pakistani nuclear program.[3] In a series of unprecedented statements on the nuclear question from Riyadh since 2011, Saudi Arabia has conveyed its willingness to consider the nuclear road if the international community is unsuccessful in halting the Iranian nuclear arms program,[4] and this may indicate a watershed in Saudi Arabian nuclear policy. At the same time, given its lack of an independent knowledge infrastructure, Saudi Arabia would presumably prefer to purchase an off-the-shelf deterrent if it decides to pursue a nuclear option.

For Saudi Arabia, the American nuclear umbrella seemed preferable over the years to an independent effort to obtain a nuclear weapons. Nevertheless, the consequences of nuclear weapons in the hands of Iran for Saudi Arabia's security and the rising doubt in Riyadh regarding the willingness of the US to continue providing it with a defense guarantee are likely to tip the balance of Saudi considerations. If Riyadh feels that it may have to contend alone with a nuclear Iran, it may be the first to acquire nuclear capability. More than any other Middle East country, Saudi Arabia has an ideological and strategic motive for obtaining nuclear weapons, and also possesses the economic ability to do so. Former senior advisor to President Barack Obama on the Middle East Dennis Ross revealed that Saudi Arabian King Abdullah explicitly warned the US President that if Iran obtains nuclear weapons, Saudi Arabia would follow suit.[5]

It is possible that Saudi Arabia would allow Pakistan to station nuclear weapons on its territory. Riyadh would then be willing to claim that this measure did not constitute a violation of the Nuclear Non-Proliferation Treaty (NPT), to which it is a signatory, particularly if the nuclear warheads themselves remained under Pakistani control. Commenting on military cooperation between Saudi Arabia and Pakistan, Gary Samore, Special Assistant to President Obama and White House Coordinator for Arms Control and Weapons of Mass Destruction, Proliferation, and Terrorism, said, "What would be more likely is that Pakistan would [again] station troops on Saudi soil, and those could include nuclear-armed forces."[6] Indeed, this scenario cannot be ruled out, even if its feasibility has been denied by Islamabad and Riyadh. It is possible that together with progress in Iran's nuclear program, Saudi Arabia would intensify its pressure on

Pakistan to provide it shortly thereafter, if not immediately, with nuclear guarantees. In any case, stationing Pakistani nuclear weapons on Saudi Arabian territory appears more practical than a direct transfer of nuclear warheads from Pakistan to Saudi Arabia.

Medium to Long Term

Despite having the world's largest proven oil reserves and being the world's largest oil exporter, Saudi Arabia has in recent years also begun to develop a civilian nuclear program. Together with the United Arab Emirates, which is now the most advanced Arab country in building a nuclear knowledge infrastructure,[7] Saudi Arabia has expanded its efforts in this direction to reduce its dependence on oil and gas for internal consumption, while maintaining, and even increasing, its oil export capacity. This infrastructure will also widen the country's industrial base, and provide training and employment for many Saudi citizens. Accordingly, a series of ventures has been inaugurated and cooperation agreements have been signed with a number of countries, including South Korea, the US, France, Russia, and China. The process of site selection for the reactors has reportedly already begun, with construction of the first reactor scheduled for completion by 2020. Construction of 16 nuclear reactors for generating electricity and water desalinization – a project described as one of the largest in Saudi Arabia's history – will require over $100 billion in investments over two decades.[8]

In the summer of 2011 it was reported that the US was negotiating an agreement with Riyadh, whereby Saudi Arabia would be allowed to engage in civilian nuclear development while the US would supply it with both know how, actual training, and nuclear materials. The contacts were based on a memorandum of understanding between Saudi Arabia and the US dating from 2008, which included a Saudi Arabian commitment to refrain from sensitive activity in the nuclear field. At the same time, Saudi Arabia has signaled on a number of occasions that it would not concede its right to uranium enrichment on its territory.[9] These hints suggest that Saudi Arabia has other intentions beyond nuclear development for civilian needs. In addition, there is no guarantee that Saudi Arabia will agree to accept the same commitment as the United Arab Emirates in exchange

for international aid, including the signing of the Additional Protocol. Several members of the US Congress have raised doubts concerning Saudi Arabia's resistance to restrictions on plutonium separation and uranium enrichment, and have expressed concern about the regional implications of its opposition to these restrictions.[10]

In addition to Saudi Arabia, Turkey is also a rival of Iran for regional hegemony. The tension between Turkey and Iran has been aggravated by the civil war in Syria and Iran's support for the Bashar al-Assad regime.[11] From time to time, Iranian spokesmen have made explicit threats against Turkey, in part to deter Turkey from military intervention in Syria. This reinforces assessments by some analysts that Turkey would attempt to develop an independent nuclear capability as an answer to the Iranian challenge, particularly in view of Iran's progress toward attainment of a nuclear capability.[12]

The tension between Turkey and its NATO allies might spur Turkey to go nuclear. Tense relations between Turkey and the European allies are in part a function of the lack of sufficient progress in Turkey's European Union accession process. Turkey is embittered by the difficulties presented by some of its allies to station early warning systems and Patriot missile batteries in its territory in times of crisis, namely, the Gulf War of 1991 and the 2003 Iraq War. This trend has been somewhat reversed by the rather swiftly-processed NATO decision in December 2012 to deploy Patriot batteries on Turkey's soil in response to the Turkish request due to its fear stemming from Syria's chemical weapons. Ankara is also harshly critical of what it regards as the international community's inadequate response to events in Syria.[13]

Before the uprising that shook the Arab world began, the prevailing opinion in Turkey was that the threats it was facing were in decline. However, the events in Syria, the deterioration of relations with Iran, and the rise in violence in the struggle with the Kurds within Turkey – in particular, evidence that Iran and Syria are again aiding the Kurdish Workers Party (PKK) – have made the Turkish public pessimistic about their country's future.[14] At the same time, the percentage of the Turkish public believing that NATO is essential for Turkey's security rose from an estimated 30 percent in 2010 to an estimated 38 percent in 2012.[15]

In accordance with its growing threat perception, Turkey has made an effort to bolster its military capabilities. The emphasis in recent years has been on a comprehensive modernization of the armed forces and development of independent advanced capabilities in the arms industry. As part of this effort, Turkey is seeking to develop surface-to-surface missiles with a range of over 2,500 km.[16] This development implies the need for potential options in the nuclear weapons sphere, because most of the countries developing missiles of this range seek them in part as a nuclear deterrent capability. At the same time, Turkey is not satisfied with its reliance only on NATO's missile defense systems, and is contemplating acquiring systems of its own.[17]

Furthermore, Turkey is developing a significant civilian nuclear program that could constitute a future basis for a nuclear weapons program. In the framework of "Vision 2023" marking the hundredth anniversary of the Turkish Republic, Turkey has declared its intention of constructing three nuclear reactors on its territory, to be built with the assistance of foreign companies. These reactors are part of a program to establish twenty reactors by 2030.[18] In 2010, Turkey signed a deal with Rosatom, a Russian government company, for the construction of a four-unit, 1200-megawatt power station as a "turn-key project," at a cost of $20 billion. The deal includes light water reactors scheduled to go into operation in 2018.[19] Talks on construction of a second reactor are also making progress, and the possibility of a South Korean-United Arab Emirates joint bid for its construction in under consideration.[20] Turkey has no practical plans to develop fuel cycle capabilities within its borders, but Turkish Prime Minister Recep Tayyip Erdoğan stated that Turkey was reserving the right to do so.[21] Unlike in the past, Turkey now possesses the economic resources and political stability necessary to progress in a civilian nuclear project. Its large scale energy needs also provide ostensible justification for moving in this direction.

Egypt has no active nuclear program capable of becoming a nuclear weapons program in the short term, owing to a series of political and economic conditions. However, while former Presidents Anwar Sadat and Husni Mubarak decided against developing nuclear weapons, not all parties in Egypt agreed. In 1984, then-Egyptian Defense Minister Abu Ghazala

asked permission from President Mubarak to develop nuclear weapons, but Mubarak refused, and the Defense Minister was fired.[22] In addition, the International Atomic Energy Agency (IAEA) discovered highly enriched uranium particles on one of its routine visits to Egypt, a discovery for which Egypt had no reasonable explanation.[23] Egypt has signed the NPT, and for years has been a vocal supporter of making the Middle East a nuclear-free zone – a call also repeated by President Mohamed Morsi. Egypt has been frustrated, however, that over the years this initiative has encountered significant obstacles,[24] and the upheaval in the Arab world has made this initiative less likely to succeed. Egypt is also dragging its feet about signing the NPT Additional Protocol, a step that would enable the IAEA to conduct more accurate tests on Egyptian territory.

The aspirations of Egypt's new leadership with regard to its regional role, as well as concern about Iran's increased power once it obtains nuclear weapons capability, make it more likely that Egypt will wish to acquire its own nuclear weapons capability, albeit through a long process of civilian development.[25] Despite its considerable pool of scientists and engineers, Egypt is currently many years away from the ability to create nuclear weapons by itself. On the other hand, the change in Egypt's leadership might be accompanied by a reversal in Egypt's strategic thinking in this area. Immediately after his election during a visit to China, Morsi declared that he was interested in a civilian nuclear program for his country in order to supply its growing energy needs. Morsi stressed that he was talking about a program to develop nuclear energy sources for peaceful purposes. "We are already studying the subject, and we intend to reopen the nuclear reactor plans that were abandoned and to reach a state of clean energy," he explained.[26] At the same time, Egypt's Ministry of Electricity and Energy announced a decision to adhere to a previous plan to complete construction of four nuclear power plants by 2025, with the first reactor to be hooked up to the electricity network in 2019. International corporations from France, the US, Russia, and South Korea have expressed interest in bidding on the project.[27]

Even though Egypt is emphasizing its energy needs as the basis for its nuclear program, its regional weight and the fact that it traditionally regards itself as the leader of the Arab world are liable to make its leaders

embrace – albeit not immediately – the option of developing nuclear weapons. Egypt has the ability – both the technological infrastructure and the personnel – to push such a project forward, and its pursuit of the nuclear course depends mainly on a political decision and its willingness to allocate resources to it. In the Egyptian context, the nuclear question is also linked to relations with Israel. If the peace treaty between the two countries unravels, Egypt might gain an incentive to move toward nuclear weapons. It is notable that starting in 2005, senior Muslim Brotherhood officials called for development of "special national programs," including a nuclear program.[28] Some of them stated, "We (the Egyptians) are ready to starve for this," while others claimed that this was a more effective way to maintain Egypt's security than through a nuclear free zone.[29] Muslim Brotherhood leader Mohammad Badie went further: "Zionists understand only force…It will be only through holy jihad and fighting by the forces of opposition. On the day when we adopt this policy, fly the flag of jihad, and go to the battlefield, Israel will be deterred and stop its arrogance."[30] Such attitudes could encourage plans to develop a nuclear weapons program.

Obstacles to Nuclear Development

If Iran reveals its nuclear weapons capability, it is likely that Saudi Arabia, Turkey, and Egypt will want to develop a similar capability, in part for reasons of prestige, and possibly also due to public pressure to respond with a rival program. At the same time, it is also possible that Iran, for various reasons, will choose to delay its nuclear weapons breakthrough, while preserving the quantities of low level enriched uranium that it has already accumulated. With its ability to adjust a nuclear warhead to the surface-to-surface missiles that it already possesses, Iran could remain a threshold state for a long time.[31] In this case, the neighboring countries will be able to continue their denial of Iran's threat to them, at least partially and publicly, and postpone the decision to embark on a nuclear project.

One factor in favor of postponement is the significant international opposition to nuclear weapons proliferation. The international community adheres to the NPT regime, even if has been violated in certain cases. Therefore, the difficulties and political costs involved in developing nuclear weapons capabilities will likely continue to deter Saudi Arabia, Turkey,

and Egypt from choosing this option. If Iran crosses the nuclear threshold, the international community's ability to object to the nuclearization of other countries will drop significantly.[32] It is likely, however, that just as North Korea's nuclear weapons capability did not cause the collapse of the NPT regime and spark nuclear proliferation in northeastern Asia, the regime would continue to exist even if Iran becomes nuclear, because most of the world's countries still wish to maintain it.

Furthermore, the assumption that a nuclear Iran presents the same significant degree of strategic threat to all these countries is questionable. Tension and disputes between Turkey and Iran constitute the background to the mutual threats voiced from time to time. Nevertheless, over the years both countries have been able to keep the border between them more or less quiet. In addition, to the extent that the international sanctions against Iran continue, Iran will remain dependent on economic relations with Turkey in order to evade some of the harmful consequences of the sanctions. Relations between Egypt and Iran became very tense after Egypt and Israel signed a peace treaty, and this tension continued throughout the Mubarak regime. After the Muslim Brotherhood gained power in Egypt, however, a certain potential for rapprochement between the two countries emerged. In any case, it is hard to imagine a situation in which Iran would choose to threaten Egypt with a nuclear attack.

Relations with the US are an additional constraint for Saudi Arabia, Turkey, and Egypt. Turkey has been an official military ally of the US through its membership in NATO since 1952, and thereby benefits from the nuclear guarantee granted to all NATO members. While Turkey has occasionally questioned the extent of its allies' commitment to its security and has been dissatisfied with their degree of support,[33] it still attributes great importance to NATO membership. Similarly, strong defense relations exist between the US and Saudi Arabia, despite the lack of an official bilateral alliance. Given the difficulties encountered by the US in stopping Iran's nuclear program and the position taken by the US on the question of the regime change in Egypt, which appeared to be the abandonment of an historic ally, Saudi Arabia has become suspicious of whether it can rely on comprehensive American military support under all circumstances. Since the so-called "Arab Spring" began, senior Saudi officials have directed

unprecedented severe criticism at American policy toward the region, which the critics say is liable to lead Saudi Arabia to adopt an independent policy, even in opposition to US policy, and to consider an end to the "oil for security arrangement."[34] Nevertheless, the US is still the only country capable of providing Saudi Arabia with an effective defense umbrella, and Riyadh understands this.

Egypt has also had significant ties with the US since 1979, and while the changes in Egypt since the mass protests led to the fall of Mubarak's regime have presented new challenges to US-Egypt relations, it is still unlikely that Egypt will choose to oppose the American position on the nuclear question. This issue may be one of many in dispute between Egypt and the US, and it is almost certain that Egypt will push to the advancement of the initiative to declare the Middle East as a region free from weapons of mass destruction.

The question arises whether some of the largely unofficial statements by Middle East countries that a nuclear Iran cannot be accepted without an independent nuclear response were intended to exert pressure on the US to take action to stop Iran. If Iran openly declares that it possesses nuclear weapons capability, countries in the region, at least Turkey and Saudi Arabia, expect the US to make an explicit commitment to their security, or at least not to withdraw from previous commitments. If the United States demonstrates such a commitment and manages to do so while taking the specific sensitivities of each country into account (this is particularly true of the Arabian peninsula, which is especially sensitive to the stationing of non-Muslim forces), these countries will almost certainly settle for such a commitment. Beyond that, a comparative look at other regions in which countries had to deal with a nuclear-equipped regional rival shows that most of them eventually chose to rely on guarantees from a powerful country, without developing a nuclear weapons capability for themselves.[35] The US has succeeded in the past in at least partly soothing its Asian allies with respect to the threat posed by nuclear proliferation in their region.[36]

Regarding the potential in the Middle East for a nuclear arms race, at issue is not only whether the parties intend to obtain nuclear weapons but also their ability to fulfill these intentions. Studies show that perhaps contrary to expectation, obtaining nuclear weapons capability has become a more

prolonged effort over the years.[37] Many obstacles will stand in the way of countries seeking to acquire an independent nuclear weapons capability. Egypt has the necessary knowledge infrastructure, but its economic problems reduce the likelihood that it will undertake such an expensive project. Saudi Arabia has a strategic motive for devising a nuclear answer to a nuclear Iran, and also possesses the economic resources needed to do so. At the same time, it suffers from a shortage of trained local personnel, and its ability to import manpower for such a project is questionable. Saudi Arabia might also be asked to what extent it would be willing to place its security solely in the hands of Pakistan. The US would presumably exert pressure on both Pakistan and Saudi Arabia in an effort to prevent tighter cooperation between them. As far as Turkey is concerned, it appears to possess the economic capability and human resources that could be trained for the task. On the other hand, the existing nuclear infrastructure in Turkey is negligible, and training the necessary personnel for a nuclear project would take a long time.

Assessment

A key argument guiding the international effort to prevent Iran from achieving nuclear weapons capability is concern about a nuclear arms race in the Middle East. It is reasonable to assume that of the regional candidates for going nuclear, Saudi Arabia is the most likely to join such a race, due to its special conditions: a perception of threat due to the belief that nuclear capability in the hands of Iran would have a negative influence on Saudi Arabia's security and stability, and its enormous economic capability that would enable it to formulate an answer to the threat even in the immediate-to-short term.

If a multi-polar nuclear system emerges in the Middle East – a region that has seen use of nonconventional weapons, and one that lacks adequate mechanisms for containing conflicts and halting uncontrolled escalation – it is doubtful whether a stable balance of deterrence could be devised. Such a system, in which both Iran and Saudi Arabia have nuclear weapons capability, would constitute an extremely difficult strategic environment for Israel.[38] Development in this direction would aggravate the challenges facing Israel in an already complex and problematic region: the Middle East

has many low level conflicts; the possibility exists that nonconventional capabilities and facilities could fall into sub-state elements acting as proxies on behalf of a country; the decision making process in countries and sub-state organizations involves uncompromising religious considerations and motives; some of the regional players lack advanced command and control systems; the main regional rivals are geographically adjacent to each other; some of them have undeveloped detection and suitable early warning systems; the region lacks effective security arrangements and free and reliable communications channels for managing crises. The risk of escalation resulting from all these factors is heightened by the possibility that a multi-polar nuclear system could emerge.

Furthermore, it is possible that countries with a small nuclear arsenal would be inclined to use it, because they fear that an external power will want to deprive them of this capability while it is new and vulnerable. The first years after obtaining nuclear capability are therefore liable to be extremely dangerous. There is great potential for crises in the region, and it cannot be ruled out that when such crises arise, they will be accompanied by threats of nuclear escalation and a rising tendency to consider use of nuclear weapons in the context of conventional conflicts. It is possible that Israel would be able to live with a nuclear Iran on the basis of a mutual deterrence, but the question arises whether Israel would retain adequate political, security, and economic freedom in a multi-polar nuclear Middle East.

Notes

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32 Amos Yadlin and Avner Golov, "A Nuclear Iran: The Spur to a Regional Arms Race?" *Strategic Assessment* 15, no. 3 (2012): 7-26.
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36 Walsh, "Will Egypt Seek Nuclear Weapons?" p. 40.
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38 The degree of stability in a multi-polar balance of deterrence is in dispute. One school of thought, prominently advocated by Kenneth Waltz, holds that the appearance of nuclear weapons not only retards arms races but also obliges the parties to act rationally and cautiously, because under the threat of absolute destruction, countries are more cautious in crises liable to lead to a conflict. He asserts that the threat causes changes in decision making, even in places where rational conduct was not initially observed. On the other hand, theorists like Scott Sagan (who uses organizational theory to support his arguments) believe that this is liable to cause deliberate or accidental escalation, certainly in the absence of civilian mechanisms of checks and balances that can supply the operational requirements necessary to maintain a stable deterrent. In his opinion, the appearance of nuclear weapons is inherently dangerous, and the fact that no nuclear war has yet taken place is purely fortuitous. For more discussion, see Scott Sagan and Kenneth Waltz, *The Spread of Nuclear Weapons: A Debate* (New York: Norton, 1995). See also Kenneth Waltz, "Why Iran Should Get the Bomb," *Foreign Affairs*, July/August 2012, and Colin Kahl and Kenneth Waltz, "Iran and the Bomb: Would a Nuclear Iran Make the Middle East More Secure?" *Foreign Affairs*, September/October 2012.