

The Proposal for a Regional Nuclear Fuel Bank in Saudi Arabia

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Israel should maintain its traditional position of opposing the establishment of an independent nuclear fuel cycle in Saudi Arabia, given the negative strategic ramifications of such a move. Specifically, Israel should insist on applying the nuclear “gold standard,” as was the case with the United Arab Emirates. However, if the idea of Saudi Arabia obtaining the capability to enrich its uranium is acceptable to the Americans and if Israel has already given a green light to the move, in part as a step toward normalization of relations between Riyadh and Jerusalem, it is worth examining an alternative proposal, whereby a regional nuclear fuel bank, under international supervision, would be set up on Saudi Arabian soil. Such a fuel bank has many advantages over building a Saudi enrichment facility; mainly, it could reduce the motivation for nuclear proliferation in the region, which is one of the greatest risks in allowing the Saudis to enrich uranium at their own facility.

The Israel– Hamas war did not stop the negotiations on a possible Israeli– Saudi future normalization, including talks on enhancing civilian nuclear cooperation between Washington and Riyadh. In an interview on July 15, US President Joe Biden [claimed that](#) in exchange for recognizing Israel, the Saudis are demanding that the United States construct and operate a civilian nuclear program on Saudi soil. The president did not expand upon the subject, and no details have been given about the full outline of the planned cooperation between the two countries in the field of nuclear energy. However, it has been known for some time that Saudi Arabia has sought permission from the United States to operate a uranium enrichment facility on its soil as part of a complete nuclear fuel cycle. According to the Saudis, the purpose of this facility would be to provide the low-enriched uranium (LEU) needed for the reactors it plans to build.

The truth is that Saudi Arabia has already taken steps toward nuclear capability:

- A. Exploitation of uranium deposits: Saudi Arabia is already mining and processing uranium ore (yellowcake). According to reports, it has partnered with China on these projects.
- B. Uranium enrichment: As far as one knows, there are no uranium enrichment facilities on Saudi soil. However, in the past, the Kingdom was involved in at least the financing of the Pakistani nuclear program. The economic unfeasibility of an independent enrichment program and the availability of a reliable

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outside source—as well as the potential of solar energy and huge oil reserves—raise suspicions that Saudi Arabia’s nuclear aspirations are not limited to its civilian use.

- C. Scientific-technological infrastructure: Although Saudi Arabia does not have adequate scientific and technological infrastructure, like the United Arab Emirates, it has started to train local personnel. In the meantime, in order to bridge the gap, it has employed foreign staff (with plans to replace them later with trained local workers).
- D. Power plants: Saudi Arabia has published tenders for two 1.4-gigawatt nuclear power plants. The location of the plants has already been determined: a coastal site that sits on the Persian Gulf, between the borders of Qatar and the UAE. China, Russia, France, and South Korea are known to have already submitted offers to build them.
- E. Research reactor: Saudi Arabia has already started work on a research reactor, manufactured by an Argentinean company, and South Korea is also involved in the project (charging the fuel rods at the reactor would require a new agreement between the International Atomic Energy Agency [IAEA] and Saudi Arabia). The light water reactor currently being built is a low-power research reactor (LPRR) providing just 30 kilowatts, intended mainly for personnel training, and does not pose a danger in terms of proliferation.
- F. Supervision: Saudi Arabia is not a signatory of the IAEA’s general safeguards agreement and has refused to sign the “Additional Protocol”. Now Riyadh is signaling that it is willing to agree to closer supervision as part of its defense treaty with the United States.

The Saudi demand for an independent nuclear fuel cycle, [which is not new](#), is backed up by arguments relating to energy and economic benefits, and senior members of the royal household have even spoken about it publicly. In the past, the Americans have insisted on the nuclear “gold standard” (in the 2009 agreement with the UAE, for example). The gold standard does not permit a country to build uranium enrichment facilities (or process nuclear material) for power stations—a principle that, until now, has prevented American involvement in the Saudi Arabian nuclear program. Now, however, it seems that the Americans are about to change their policy. Several senior Israeli officials have also spoken recently about the issue, saying that it is a separate American–Saudi matter and that Israel has no part in it. They added that, in general, Israel would have no problem with a civilian nuclear program in Saudi Arabia since there are already similar programs in neighboring countries. Based on these comments and [related reports](#), it seems that Israel and the United States are even discussing possible relevant frameworks. Under these circumstances, it is important to

reiterate the main dangers inherent in allowing Saudi Arabia to enrich uranium on its soil:

- A. Eroding the taboo over enrichment: Other countries could also demand the right to enrich their own uranium, or to do so with outside assistance, not necessarily American, along the same lines as Saudi Arabia.
- B. Cancelling the gold standard: Countries that previously agreed not to enrich uranium on their soil in exchange for international assistance in establishing a civilian nuclear power program—primarily the UAE—could perhaps in the near future demand to renegotiate the agreements they signed.
- C. Saudi deception: The Kingdom has a problematic history when it comes to nuclear power and missiles. Establishing an autonomous nuclear fuel cycle on Saudi soil would involve the medium- and short-term danger of acquiring knowledge and diverting resources. Additionally, there is the risk of future nationalization of the enrichment plant.

A supervised regional nuclear fuel bank could mitigate some of the dangers of an autonomous nuclear fuel cycle on Saudi soil, if the following criteria are met:

- A. The enrichment facility in Saudi Arabia is built by an international consortium in which the Kingdom does not have more than a 50% stake in the project. The facility will also produce the raw materials for the enrichment plant. The plant will produce a chemical compound suitable for use as nuclear fuel. No other compounds—such as metal—will be produced.
- B. There will be strict supervision of all nuclear activity on Saudi soil, including uranium ore mining. Saudi Arabia will be under the close inspection of the IAEA, including signing the “Additional Protocol”.
- C. Saudi Arabia will agree to the construction of a nuclear fuel bank on its soil that will serve all the countries in the Middle East, including Iran, and will be owned and supervised by the international community.

Additional advantages of a nuclear fuel bank include:

- A. Curbing nuclear proliferation: Establishing a facility that is open to all nations in the region could mitigate some of the dangers inherent in allowing Saudi Arabia to enrich uranium on its soil, especially regarding regional nuclear proliferation. Since the enrichment facility would be regional, it could answer the demand of those countries that want to enrich their own uranium.
- B. International control and supervision: The enrichment facility and additional related facilities would be extraterritorial and under the supervision of the

IAEA. Ideally, American companies would be responsible for constructing the facilities.

- C. Curbing nuclear aspirations: Significant US involvement in the Saudi nuclear program would provide an “inside view” of the program, making it harder for the Saudis to deceive the world and could also reduce the Saudis’ motivation to resort to military nuclear capability in the future.
- D. Blocking China and Russia: It is clearly in Israel’s interest that Washington, rather than Beijing or Moscow, help Riyadh’s nuclear program, if only because the United States is greatly committed to preventing nuclear proliferation.
- E. Having the nuclear fuel bank on its territory would be a massive boost for Saudi Arabia’s international standing and would be one factor that could curb Riyadh’s desire to attain a nuclear balance with Iran.
- F. The regional bank would place limitations on Middle Eastern countries without eroding the taboo on enrichment, to the same extent that is expected to happen with the construction of a Saudi enrichment facility.
- G. The establishment of a regional bank could moderate opposition from some countries in the area to Saudi enrichment, especially regarding the construction of an enrichment facility in Saudi Arabia.

The establishment of a regional nuclear fuel bank could also have drawbacks, primarily normalizing the issue of enrichment or increasing the desire of countries in the area to launch their own nuclear programs, which, if it were not for the Saudi facility, they would have considered. And still, it seems that the disadvantages of a regional nuclear fuel bank are relatively minor compared to those involved in allowing Saudi Arabia to operate an autonomous nuclear fuel cycle, which would include the construction of an enrichment facility on its soil.

The Middle East already finds itself in the middle of a low-key nuclear race (civilian, as far as we know) and we must find creative ideas to at least control the pace of progress. Israel could continue to vehemently oppose any change in the nuclear status quo in the Middle East, including opposing uranium enrichment in Saudi Arabia. However, if the Americans do indeed give up on the nuclear gold standard, and even if they do so only for the Saudis, there will be extensive and negative international ramifications for the nuclear nonproliferation treaty since the Americans will no longer have a moral (or, indeed, political) reason to deny other countries that also want an autonomous nuclear fuel cycle—even if they purport to have purely peaceful intentions. The nuclear fuel bank controlled and inspected by the IAEA in Kazakhstan is a model that can be learned from.

As far as Israel is concerned, it would be right to insist on the nuclear [gold standard](#), as was determined in the case of the UAE. However, if the horse has already left the barn, so to speak, if the Americans are amenable and Israel has given the green light to progress with the outline that includes permission for Saudi Arabia to enrich its own uranium, the proposal to establish a regional nuclear fuel bank on its soil should be discussed since this would reduce the risks involved in autonomous enrichment on Saudi soil and in regional proliferation.

It should be emphasized that while Israel has the ability to influence the US Congress and while many lawmakers in Washington, who do not have much faith in Saudi promises of transparency, are extremely critical of Saudi Arabia, an Israeli campaign to thwart Saudi enrichment carries secondary risks. This is especially true given that the media would extensively cover Israeli opposition, which could harm relations with both Saudi Arabia and the current American administration. In any case, it is reasonable to assume that Israel's chances of influencing the outcome of negotiations between Washington and Riyadh are low.

A more favorable option, given that the Americans are already willing to allow Saudi Arabia to enrich uranium on its soil, is to try to participate in the discussions and influence them so that Israeli security interests are taken into account. This will also allow Israel to negotiate any possible "compensation" that Washington would grant. Israel's position is important to the United States, and it is possible that the Biden administration will need Israel's help as it tries to gain support for the deal with Saudi Arabia among lawmakers in Washington. Israel must use this leverage to improve the terms of the deal and to introduce new ideas, such as a regional nuclear fuel bank.

Editors of the series: Anat Kurtz, Eldad Shavit and Ela Greenberg