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NUCLEAR MIRAGE? ASSESSING CIVILIAN NUCLEAR PROGRAMS ACROSS THE MIDDLE EAST

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In recent years, a significant number of states in the Middle East have begun seriously to consider nuclear infrastructures for civilian purposes, and some have even begun constructing them. While several of the states, such as Egypt, have considerable experience in this field, others, such as the Gulf States, have no prior experience. Interestingly, the latter have thus far shown the most progress, as demonstrated by the United Arab Emirates (UAE), which is expected to be the first Arab state to operate nuclear power reactors in the region. Iran's advanced nuclear program and the fears it has spawned have apparently been the catalyst for initiating these ambitious programs. However, those countries that are now examining the nuclear path claim that their main interests are producing electricity or desalinating water—not achieving a nuclear balance with Iran.

The fact that the preferred path for some states that developed military nuclear capability in recent decades was through civilian nuclear development sparks fears concerning the civilian nuclear programs in the Middle East. Therefore it is generally preferred that states seeking to develop new nuclear programs not be allowed to obtain nuclear fuel cycle capabilities on their territory. These restrictions have aroused resentment among the new nuclearizers, and such states as Turkey, Saudi Arabia, and Jordan have declared that they will retain the right of access to fuel cycle technologies—first and foremost to carry out the process of uranium enrichment on their territory.

The current role of nuclear power as a source of energy in the Middle East is negligible. However, no fewer than thirteen states have declared in recent years that they intend to develop a civilian nuclear infrastructure. While most of the projects are far from finished, it is likely that early in the next decade Turkey and the UAE will produce some of the electricity they require using nuclear reactors. Egypt, Algeria, and Saudi Arabia also have the capability to set up civilian nuclear programs in the future. Many of the states make convincing arguments regarding the value of the projects: the growing demand for energy; reduced dependence on fuels that pollute; and release of a larger share of oil and gas for export. However, additional considerations—of prestige and regional standing that naturally accompany nuclear development—cannot be ruled out.

Still, there is a long road ahead for the “new nuclearizers” and some will not reach the finish line. Many of the declarations are not followed by action on ground, and many states have not yet resolved fundamental issues

connected to nuclear development, including the long term safety of the fuel supply, arrangements for handling spent fuel, and regulatory and political solutions. Others have not yet resolved issues such as project funding, necessary changes to the electric grid, and more sensitive issues concerning access to uranium enrichment and plutonium separation technologies. The Fukushima disaster in March 2011 which was the worst nuclear disaster since Chernobyl in 1986, has thus far not had a significant impact on the policy of the Middle East countries, except for Kuwait, which suspended its nuclear development. Furthermore, countries such as Saudi Arabia seem to be accelerating processes connected with nuclear development.

The issue of access to fuel cycle technology is the most worrisome for those who fear a transition from civilian nuclear programs to military programs (only two states outside of Europe that have a well-developed civilian nuclear infrastructure—Japan and Mexico—have not considered the military nuclear option at any time). Some of the states wish to retain the right to maintain such capabilities but still lack the ability to do so. The international community has good tools to cope with this danger, if only because of the dependence of most of these states (Egypt and Turkey to a lesser extent) on assistance in building nuclear infrastructures and in training personnel. Thus, for example, both Turkey and the UAE chose, at least in the first stage, to receive the fuel from outside sources and send the spent fuel back to Britain or France, in the case of the UAE, or Russia, in Turkey's case. However, concerns may be raised that economic considerations are liable to bring about a situation in which countries that export nuclear technologies will be less punctilious about the restrictions so as not to lose potential markets.

The rationale behind the “123 Agreement” between the United States and the UAE, which entitles the latter to nuclear know-how in exchange for a commitment not to enrich uranium or reprocess spent fuel, was to set a binding precedent, a sort of gold standard, which would henceforth apply to all states seeking to build a civilian nuclear infrastructure. However, since then, countries like Saudi Arabia and Jordan (and states outside the region, such as Vietnam), have been less prepared to adopt similar terms, especially regarding relinquishing enrichment and separation capability. It appears that the United States, which is seeking to avoid loss of markets in its competition with countries such as Russia, France, and Korea, is likely to put aside the precedent that it sought to establish, and to adopt a strategy of judging on a case by case basis. Aside from the possible danger to the agreement already signed with the UAE, according to the policy being formulated, a number of “new nuclearizers” will be able to enrich uranium. It is not inconceivable that others will seek to do likewise.

Selective application of the “gold standard” that the US established with the UAE—precisely at this time, when the international community is having difficulty stopping uranium enrichment in Iran—does not ensure that those other states will in fact acquire the facilities and the know-how from the United States and will probably only harm the NPT. Thus, the US should thoroughly consider its position with regard to the possible divergence from the 123 principles.

One of the most compelling arguments made by those who support stopping Iran before it acquires military nuclear capability is that other states in the region will follow in the nuclear path. However, the expected pace of civilian nuclear proliferation in the Middle East now appears to be slower than was believed in the middle of the previous decade, when the start of the programs was announced. This is because of various obstacles, some political and diplomatic, but mainly economic and technical. As a result, only a small number of states that had declared their intention to establish viable nuclear programs have succeeded in doing so.

Furthermore, most of the states discussed here do not constitute a threat in the foreseeable future in terms of nuclear proliferation. In spite of the differing characteristics of the “new nuclearizers,” most of them, perhaps other than Saudi Arabia, show a relatively high level of transparency as a means to gain the support of foreign governments and companies in promoting the projects. The danger of a nuclear arms race in the Middle East is not connected, at least in the short term, with development of civilian nuclear programs, and certainly according to the model adopted by the UAE. However, there are several states that pose a greater risk. As Iran's nuclear program progresses, it is also not inconceivable that various actors will look for shortcuts and seek not only to promote a civilian program, but also to acquire the components of off-the-shelf weapons. This is perhaps the more worrying scenario than what is currently happening with regard to civilian nuclear programs in the Middle East.

All the states discussed here are signatories to the NPT, although Egypt and Saudi Arabia have not adopted the IAEA Additional Protocol, an issue that must also be resolved as a condition for international assistance in this area.

Some of the civilian nuclear projects can still be presented as competitors to the Iranian model, as they prove that it is possible to promote a nuclear program according to accepted standards and receive aid from the international community. But given that nuclear technology has a dual use, and the fact that several of the states fear Iran's nuclear ambitions, the possibility that some of them will in the future seek to realize the military potential latent in their projects cannot be ruled out.

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