

Nuclear futures for the Middle East: impact on the goal of a WMD-free zone

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A book entitled *The Nuclear Age in the Middle East* by Shimon Yiftah, published in Israel in 1976, opens with an overview of the state of affairs and potential trends in the apparently pending nuclearization of the Middle East. Egypt, Iran, Israel and Saudi Arabia are mentioned as partners in various nuclear negotiations with France, the Soviet Union and the United States.¹ These developments are presented as evidence of the dawn of the nuclear age in the Middle East. Yiftah then poses the following questions:

- Do these deals carry regional and international risks of the spread of nuclear weapons to a sensitive and explosive region?
- Could the building of nuclear power plants be prevented or delayed?
- What are the motives of France, the Soviet Union and the United States?
- Do Egypt and Israel need nuclear power plants?²

Except for secondary facts such as the names of political leaders and the specific partnerships behind some of the deals, the opening pages of this book and the author's questions are as relevant today as they were over 30 years ago.

Today, Iran and Israel are under the international spotlight for assumed or suspected nuclear weapons programmes, outside or in spite of the global non-proliferation regime. Over a dozen Arab states have announced plans to develop nuclear power programmes and are in various stages of negotiations or research and development. France, the Russian Federation and the United States are once again key players seeking to influence nuclear developments in the Middle East, this time joined by international bodies such as the International Atomic Energy Agency (IAEA) and newcomers such as Japan.

Leaders and alliances aside, today's political context differs in at least one significant way from that of three decades ago. The international community has a clearly identified and universally agreed vision for the Middle East: ³ a zone free of weapons of mass destruction (WMD). This vision, or goal, has been confirmed at the highest political levels and by all states in the region. It would turn the Middle East into the first freely negotiated WMD-free zone (WMDFZ), improving on the already existing nuclear-weapon-free zones (NWFZs) elsewhere around the world by incorporating the de facto link among nuclear, chemical and biological weapons, a link that is particularly pertinent to security dynamics in the Middle East.

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This article will explore the goal of a WMD-free zone in the Middle East, as well as WMD-related programmes and nuclear plans in the region, in an attempt to address the following questions: how does the potential nuclearization of the Middle East affect progress toward the goal of a NWFZ or WMD-free zone? What are the underlying interests and concerns behind current plans to pursue nuclear power? What alternative approaches to energy and security needs might contribute to a WMD-free zone?

The goal of a WMD-free zone in the Middle East

The goal of a NWFZ in the Middle East has been recognized in UN General Assembly resolutions since 1974 (following a proposal by Egypt and Iran),⁴ and the resolutions have been adopted by consensus since 1980. NWFZs have been successfully negotiated and adopted elsewhere around the world, and more such zones are being pursued. But in the Middle East the goal of a NWFZ came to be linked with a WMD-free zone in the review process of the Treaty on the Non-Proliferation of Nuclear Weapons (the Non-Proliferation Treaty, or NPT). This is because of the de facto link that states in the region have made among WMD.⁵

Table 1. Middle Eastern states with potential WMD capabilities

Country	Nuclear capability	Chemical	Biological
Algeria	✓ ^a		
Egypt	✓ ^b	✓	✓
Iran	✓ ^c	✓	✓
Iraq	✓ ^d	✓	✓
Israel	✓ ^e	✓	✓
Libya	✓ ^f	✓	✓
Saudi Arabia	✓ ^g		
Syria	✓ ^h	✓	✓

Notes:

^a Algeria has safeguarded nuclear facilities. France conducted its first nuclear tests in Algeria during the 1960s.

^b Egypt has safeguarded nuclear research facilities.

^c Iran disclosed clandestine nuclear activities in 2003. Its current nuclear programme and uranium enrichment activities in particular are the subject of international attention, including Security Council resolutions demanding that it cease uranium enrichment. Iran denies having any plans to develop nuclear weapons.

^d The Iraq Survey Group concluded in 2004 that Iraq had not reconstituted its nuclear weapons programme since 1991, but that Iraq's nuclear ambitions had not disappeared. In 2003 and 2004 there were reports that Iraq had made illicit transfers of WMD materials into Syria prior to the war in Iraq, <www.globalsecurity.org/wmd/world/iraq/nuke.htm>.

^e Israel has never confirmed having nuclear weapons, but according to foreign estimates has up to 200 nuclear warheads, <www.globalsecurity.org/wmd/world/israel/nuke-stockpile.htm>.

^f Prior to 2003 Libya was engaged in acquiring dual-use nuclear technology from a variety of countries. In 2003 Libya agreed to destroy all of its nuclear, chemical and biological weapons, <www.globalsecurity.org/wmd/world/libya/nuclear.htm>.

^g Saudi Arabia does not have WMD or a nuclear energy programme, but does have long-range ballistic missiles. Saudi Arabia denies that the country is considering acquiring nuclear weapons, <www.globalsecurity.org/wmd/world/saudi/index.html>.

^h A series of unconfirmed US media reports in September 2007 claimed that Syria was developing a secret nuclear installation with support from the Democratic People's Republic of Korea. These were followed by an October 2007 Israeli air strike in Syria directed against an alleged nuclear facility under construction, but the nature of this facility has not been confirmed, <www.globalsecurity.org/wmd/world/syria/nuke.htm>.

Source: GlobalSecurity.org, *States Possessing Weapons of Mass Destruction*, at <www.globalsecurity.org/wmd/world/wmd_state.htm> (page last modified 28 April 2005). The above information includes unconfirmed reports of possible nuclear plans and activities.

A WMDFZ in the Middle East was first put forward by Egypt's President Hosni Mubarak in 1990.⁶ Since 1990 the goal of a WMDFZ has been recognized by all relevant members of the international community, including all states of the region, as well as the UN Security Council.⁷ All members of the NPT have acknowledged this goal through the 1995 NPT Middle East Resolution and the Final Document of the 2000 NPT Review Conference, indicating that all states except Israel accept this goal.⁸ Israel has acknowledged this goal separately by joining the annual United Nations General Assembly consensus resolution on a NWFZ with an explanation of vote that refers to the goal of a WMDFZ once regional peace and security have been achieved. Israel's position is that peace and stability must prevail in the region before nuclear issues can be addressed: "the establishment of peaceful relations, reconciliation, mutual recognition and good neighborliness, and complemented by conventional and non-conventional arms control measures" is a precondition for achieving the vision of a WMDFZ or establishing a NWFZ in the Middle East.⁹

The Middle Eastern states may support the goal of a WMDFZ, but the fact remains that WMD, specifically chemical weapons, have been used in the region,¹⁰ and the majority of countries in the region have some form of WMD-related research, development or weaponization programme (see Table 1).¹¹ Moreover, the Middle East remains the region with the greatest concentration of states that are not party to one or more of the international treaties dealing with WMD (see Table 2): the Biological and Toxin Weapons Convention (BTWC), the Chemical Weapons Convention (CWC) and the NPT, as well as the

Table 2. Middle Eastern states' membership of international treaties dealing with WMD

State	NPT	CWC	BTWC	CTBT
Algeria	✓	✓	✓	✓
Bahrain	✓	✓	✓	✓
Comoros	✓	✓		s
Djibouti	✓	✓		✓
Egypt	✓		s	s
Iran	✓	✓	✓	s
Iraq	✓			
Israel		s		s
Jordan	✓	✓	✓	✓
Kuwait	✓	✓	✓	✓
Lebanon	✓		✓	s
Libya	✓	✓	✓	
Mauritania	✓	✓		✓
Morocco	✓	✓	✓	✓
Oman	✓	✓	✓	✓
Qatar	✓	✓	✓	✓
Saudi Arabia	✓	✓	✓	
Somalia	✓		s	
Sudan	✓	✓	✓	✓
Syria	✓		s	
Tunisia	✓	✓	✓	✓
UAE	✓	✓	s	✓
Yemen	✓	✓	✓	s

Notes: ✓ = full members; s = signed but not ratified agreement.

Sources: Jez Littlewood, 2004, "Strengthening the Role of the BTWC and CWC", in *Building a Weapons of Mass Destruction Free Zone in the Middle East: Global Non-Proliferation Regimes and Regional Experiences*, Geneva, UNIDIR and League of Arab States, p. 29; additional NPT, CWC and BTWC data: *Status of Multilateral Arms Regulation and Disarmament Agreements*, at <disarmament.un.org/TreatyStatus.nsf>, 19 March 2008; CTBT data: *Status of Signature and Ratification*, 19 March 2008, at <www.ctbto.org>.

Comprehensive Nuclear-Test-Ban Treaty (CTBT). Having already broken the WMD taboo, and in light of deep-rooted political tensions and a frequent resort to the use of force, the potential for nuclear conflict in the Middle East is all too real.

Regional energy needs and security dynamics

Legitimate energy needs have an influence on security dynamics in the Middle East. There is a growing demand for energy in the Levant and Maghreb, and Gulf states are keen to diversify their energy options. This has contributed to a general interest in nuclear energy within the region. The potential "nuclearization" of the region raises concerns about the potential for nuclear proliferation because of the inherent adaptability of civil nuclear programmes to military purposes.

It should be remembered that nuclear technology was originally developed for military use. The military-to-civil adaptability of nuclear programmes was essentially an afterthought, following the research, development and use of nuclear weapons. The history of nuclear power has shaped not only the inherent physical duality of nuclear programmes, but also their association with political power and national military security. These factors should be kept in mind when assessing energy needs and the nuclear option.

REGIONAL ENERGY NEEDS

The growing need for energy in the Middle East is indisputable. The United Nations' Millennium Development Goals and other expressions of the right to sustainable development have recognized developing countries' energy needs. Nuclear energy has been promoted by the industry, by nuclear-capable states and by international bodies as a possible solution to growing energy and climate change concerns.

During 2006 and 2007, more than 10 Arab states announced an interest in exploring nuclear power plans, and several have begun negotiations or discussions with international bodies over facility and fuel possibilities. French President Nicolas Sarkozy, described as "the world's most aggressive salesman for nuclear power",¹² spent much of December 2007 and January 2008 visiting Middle Eastern Arab states to peddle French nuclear technology. In an interview with Al Jazeera television he framed the nuclear energy option as a matter of equity, rhetorically asking "why should Arab countries be deprived of the energy of the future?" and even going so far as to suggest that nuclear power could help in the struggle against terrorism: "Terrorism flourishes in the embrace of despair and backwardness. We want to help Arab countries develop, and we want to upgrade the economies of the 21st century."¹³

Sarkozy's efforts bore fruit in the form of deals or offers of nuclear technical advice for Algeria, Egypt, Libya, Morocco, Qatar, Saudi Arabia and the United Arab Emirates. However, these deals or offers are still in the form of agreements in principle rather than concrete plans to build nuclear power plants. Before these and other deals lead to the proliferation of nuclear capabilities in the Middle East, it would be valuable to ensure that this is the best approach to meeting the region's energy needs, and that it will not aggravate already existing security tensions.

The duality of nuclear technology—and the *political* as well as physical implications of this duality—deserves serious attention before any irreversible decisions are taken. The competing interests and conflicting concerns of external players regarding the nuclear energy–nuclear proliferation relationship reflect this duality; actors are worried about the spread of nuclear weapons technology but eager to benefit from the interest in nuclear energy. The United Kingdom is actively involved in talks with Israel and with Arab states on this issue; it unequivocally calls on Israel to join the NPT, while

at the same time engaging in activities that undermine this call, such as multibillion-dollar arms sales to Saudi Arabia.¹⁴ In its turn, the United States supports the goal of a WMDFZ and simultaneously enables Israel to maintain its current nuclear policy.¹⁵

The status and prestige that even civil nuclear capability bestows is illustrated by the growing international controversy over access to the nuclear fuel cycle. This has become a critical question for the promotion and spread of nuclear energy. Multilateral nuclear approaches and proposals for limited access may be gaining ground among developed and nuclear-capable states, but they are facing growing opposition among developing countries.¹⁶ Most Arab states fall into the category of developing countries that resent the efforts of developed states to limit their access to proliferation-sensitive technologies.

REGIONAL SECURITY DYNAMICS

Iran, which has been party to the NPT since 1970, is now the focus of international headlines because of concerns that it seeks a nuclear weapons capability. But these headlines have provoked mixed feelings among other Middle Eastern states, reflected more broadly in the reaction of the Non-Aligned Movement (NAM). The NAM is hesitant to criticize Iran because of the perceived right to access all parts of the fuel cycle, despite the fact that many NAM countries are concerned about Iran's ambitions. Analysts outside the region and in Israel suspect that the nuclear plans recently announced by a number of Arab states are linked to security concerns regarding perceptions of nuclear proliferation in the region:

The Middle Eastern states say they only want atomic power. Some probably do. But US government and private analysts say they believe that the rush of activity is also intended to counter the threat of a nuclear Iran.

By nature, the underlying technologies of nuclear power can make electricity or, with more effort, warheads, as nations have demonstrated over the decades by turning ostensibly civilian programs into sources of bomb fuel. The uneasy neighbors of Iran, analysts say, may be positioning themselves to do the same.¹⁷

Israel's nuclear arsenal, calculated by sources originating outside of Israel to be some 100–200 nuclear weapons,¹⁸ remains a concern and is criticized in annual United Nations General Assembly and IAEA resolutions. It also provides a focus for the dissent of various states parties to the NPT, which Israel has never joined. In contrast to Israel's position, discussed earlier, the Arab states' official position is that before arms control and regional security can be addressed, Israel's nuclear weapons must be dealt with.¹⁹

This deadlock has been described as a "chicken and egg" paradox. As long as each side insists on the realization of its precondition, there will be no progress on any side—a situation that suits the absolutists on all sides. At the root of these polar opposite starting positions are the perceived threats and the perceived military balance between Israel and the Arab states. In the past, when Israel decided to acquire a nuclear capability, its leaders were driven by a subjective but real concern (according to the logic of national security) about the Arab states' conventional military superiority and their determination that the state of Israel should cease to exist. Today there is little doubt about Israel's ability to win a conventional war, but neither this nor Israel's nuclear capability are of much value in confronting the current prevailing security threat: terrorism and cross-border rocket attacks on southern and northern Israel by Hamas and Hizbullah respectively.

The regional security situation has changed in other ways since Israel first developed its nuclear capability and accompanying policy of deterrence through ambiguity. The change in key Arab

states' positions on Israel (e.g. peace treaties between Israel and Egypt and Israel and Jordan, the ongoing peace process—including the Madrid and Oslo agreements—and the offer of normalization embodied in the Arab Peace Initiative²⁰), the shifting regional military balance, and the evolving nature of immediate threats to Israel's perceived national security all necessitate a renewed assessment of the real threats to Israel and the best approach to defusing these threats. Israel's current policy in relation to WMD—being the only state in the world not party to any of the three main treaties relating to biological, chemical or nuclear weapons—suggests to some an intention to retain the option of WMD development and use. Its nuclear potential, in combination with its conventional superiority, could be seen as promoting proliferation of WMD, and serves as a convenient—and the most salient—excuse for the Arab states and Iran to retain or develop WMD capabilities and options even where other considerations should in fact prevail. At the same time, Israel's lack of strategic depth²¹ means that any proliferation of WMD across the region is a serious threat to its security; the lack of depth also means it is unlikely to be able to establish an effective system of missile defence unless it is part of and dependent on a multi-layer ballistic missile defence system of the United States.

How then will the nuclear era play out in the Middle East? What are the potential consequences, including unintended, of a dozen or so countries building large-scale nuclear facilities and seeking to ensure non-discriminatory access to nuclear fuel? It is not possible to predict precisely what kind of Pandora's box might or might not be opened by the pursuit of nuclear energy sources and options, but history teaches that in the Middle East conflict can, and does, erupt frequently and suddenly.

Impact on the goal of a WMD-free zone

A WMDFZ is consistent with everyone's long-term security interests.

The goal of a WMDFZ in the Middle East has been used as a "political football",²² with each side holding the other responsible for the lack of meaningful progress. But it can also be argued that a WMDFZ is consistent with everyone's long-term security interests and that if any one side indicates a willingness to relax its current entrenched position, others will relax their positions as well. If so, then a show of flexibility is likely to create a real political opening and would increase external political pressure on other sides.

In order to reverse the current trend toward proliferation and to make concrete progress toward disarmament, the prevailing concerns of each of the relevant players must be addressed. Once the parties involved are confident that their security concerns can be addressed through the political process, negotiations on the building-blocks of a WMD disarmament regime can have some prospect of moving forward constructively. Progress toward the goal of a WMDFZ in the Middle East, however, depends not only on the states of the region. As we have seen, outside powers also have interests in the region and influence security dynamics.

The de facto link among WMD in the region means that there must be progress on nuclear weapons for progress to be achieved on biological or chemical weapons. The inherent duality of nuclear technology, combined with the political value and status associated with nuclear capability, means that the spread of nuclear technologies is likely to hamper such progress. The outside players who seek to promote civil (or more accurately, commercial) nuclear programmes in the Middle East recognize this fact and have sought to address it through proposals for control of the nuclear fuel cycle, such as the IAEA's Multilateral Nuclear Approaches.

The controversy and sensitivity surrounding questions of access to the entire nuclear fuel cycle will determine the feasibility and nature of nuclear energy programmes in the Middle East. Proposals for a regional nuclear fuel supply could address regional access concerns but aggravate

regional proliferation concerns, depending on how such a "fuel bank" is established and how secure or proliferation-prone it is perceived to be.

Nuclear energy—and access to the entire fuel cycle—is perceived as a right not only because of Article IV of the NPT but also because it is a stark example of the divide between the haves and have-nots. In the nuclear case this divide touches on both development and security issues, generating perceptions of a *double* double standard: developing countries are denied energy options available to the developed world, and developing countries cannot be trusted to use this technology for non-military purposes, even though they have declared their interest to be for purely peaceful purposes and even though some of the developed countries actually do have nuclear weapons. In short, the potential spread of nuclear technology in the Middle East stands to aggravate all aspects of North–South tension and trigger fierce debate as plans for the simultaneous promotion and control of this technology are considered and discussed.

These observations relate directly to several of the Arab states now considering or even planning nuclear power plants, especially those in North Africa. Their official and stated position is that their interest is for peaceful purposes, and they continue to take the lead on diplomatic exercises that highlight the goal of a WMDFZ or NWFZ. Without questioning the good faith of these positions, the spread of nuclear technology will still affect regional security dynamics because of its inherent duality, its political prestige, and the demonstrated influence that nuclear capabilities can have, even without acknowledgement or proof of a weapons capability. The cases of Israel and Iran, and regional and international reactions to their nuclear programmes, illustrate this point.

Israel's reservations regarding a WMDFZ are based on regional security concerns and perceptions relating primarily to "conventional" threat perceptions. Perceptions of new nuclear threats arising from nuclear energy programmes will likely galvanize Israel's position and increase Israel's reservations. If the Middle East appears to Israel to be an increasingly hostile neighbourhood, then it has even less incentive to actively pursue regional WMD disarmament according to the logic of national security planning that prevails in Israel.

Security and energy alternatives

The energy–security link for the purposes of this article refers to the security of energy supplies as well as security in the military (so-called "hard security") sense, in an attempt at a more holistic and realistic approach to security and the sources of conflict, which encompasses both development and defence needs. Success in security and disarmament efforts in the Middle East requires that so-called "soft security"²³ issues such as development and human rights be addressed as these are a frequent and recurring source of insecurity and conflict.

Peace process and Middle East WMDFZ efforts will continue to fail unless they are complemented by a process that addresses the past and the more human, social and psychological elements that undermine security. This entails not only identifying mechanisms for the promotion of sustainable development and human rights, but also agreeing on a forum for the airing of past injustices. These mechanisms can be initiated on the local level, without waiting for an overall solution. One idea to promote peace and development would be to undertake joint economic programmes around sustainable energy.

Any peace process, including the pursuit of a WMD disarmament regime, must be part of an iterative process. Political demands will need to be constantly checked against underlying security concerns, threat perceptions and political and social realities in order to prevent a breakdown. Confidence- and security-building measures must then be developed, tailored to address these specific concerns.

ALTERNATIVE ENERGY SOURCES

Energy security for the region has a direct bearing on the feasibility of non-proliferation and disarmament efforts. The presence of a nuclear power programme complicates non-proliferation efforts as it increases the need for safety and security measures and multiplies the number of proliferation access points, whether to governments (independent of their actual intentions) or to non-state actors. Thus a WMD disarmament regime can only succeed if it accommodates energy needs and related security concerns.

The region's legitimate energy needs can be best addressed through a combination of energy efficiency measures and renewable energy sources, primarily solar and wind. These will not give rise to proliferation or other security concerns. Admittedly, they do not have the political prestige of nuclear technology, but their capacity to address real energy needs could serve to redirect the current interest in nuclear energy and accompanying efforts to achieve nuclear capability. Alternative energy scenarios for the Middle East that propose a combination of energy efficiency and renewable energy sources have been developed and can be built upon.²⁴

NUCLEAR CAPABILITY AND FUEL CYCLE ACCESS

A global approach limiting access to sensitive fuel cycle technologies across the board—along the lines of a Comprehensive Fissile Material Treaty,²⁵ which goes beyond current Fissile Material Cut-off Treaty proposals—could address regional proliferation concerns and engage relevant states in a way that does not aggravate threat perceptions in the Middle East. Recommendation 12 of the WMD Commission, which calls for a verified suspension of sensitive fuel cycle activities, should also be explored in this context.²⁶ In some cases sensitive fuel cycle activities could be limited and placed under IAEA monitoring as either an interim or a confidence-building measure.

RATIFICATION OF THE CTBT

Of the 44 states whose ratification is needed for entry into force of the CTBT, four are in the Middle East: Algeria, Egypt, Iran and Israel. Of these, all have signed the CTBT but to date only Algeria has ratified it. Egypt has issued official statements linking its ratification to the nuclear policies of Israel.²⁷ Egypt's position could relax if it were reassured that regional non-proliferation concerns and disarmament objectives are being pursued in a context that involves Israel and is geared toward disarmament, and if Israel would take the first step of ratifying the CTBT.

Israel participates very actively in CTBT work. On the matter of ratification of the treaty, however, Israel continues to express reservations over the readiness of the verification regime and over Israel's "sovereign equality" status in the treaty's policy-making organs (referring to the geographical groupings of states for the purposes of election to policy-making organs and, presumably, the unlikelihood of Israel being chosen as a representative state of the Middle East and South Asia region).²⁸

Israel's verification concerns reflect a belief that a foolproof verification system is a precondition for ratification, a position that is impossible to satisfy, has not prevented the development of verification systems in the past, and ignores the reality that even a less than perfect verification system can be a better guarantor of security than no verification system.

Israel has much to gain and risks little by ratifying the CTBT. It is assumed—and even rumoured—that Israel's primary reason for not ratifying the CTBT is its close relationship with the United States, which has actively rejected ratification of the treaty. However, ratification would in fact—and particularly in light of its relations with the United States—enhance Israel's standing as a responsible

state worthy of "sovereign equality", and would reassure the international community and its neighbours that Israel supports nuclear disarmament. As the only country in the region and one of the very few in the world not party to the NPT, and precisely because of its policy of nuclear ambiguity, Israel is in a unique position with respect to the value of CTBT ratification and the message this act would send to the region and the world. If Israel were to ratify the CTBT it would then be harder for Egypt to resist ratification, and if Egypt were to follow suit, Iran would remain the only country in the region that has not ratified the treaty. Ratification by Iran would go some way toward demonstrating the peaceful intentions of its controversial nuclear programme.

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NO FIRST USE OF WMD

Unilateral commitments to no first use (NFU) of WMD by the states of the region, based essentially on their current stated policies and relevant treaty membership, would not entail significant risk or require significant departures from current policy, and these commitments could pave the way for a regional no first use of WMD agreement, and a first step toward a WMDFZ.²⁹ Despite the concerns and unconfirmed reports regarding the nuclear capabilities and ambitions of some states, none of the Arab states is currently known to have a nuclear weapons programme and all are members of the NPT, which would prohibit their developing or acquiring nuclear weapons. Therefore a nuclear NFU pledge would basically be a mere formality.

With respect to biological weapons, the BTWC prohibits the development, production, stockpiling, acquisition or retention of these weapons and "there is no doubt among the ... states parties to the BTWC that any use of biological or toxin weapons in armed conflict or for hostile purposes would be a breach of the convention".³⁰ According to international law, states that have signed but not yet ratified a treaty are legally prohibited from taking action that would violate the affirmative provisions of the treaty. Thus the states that have signed but not yet ratified the BTWC would be legally prohibited from using biological weapons; those states that have neither signed nor ratified do not have biological weapons programmes. Iran is party to the BTWC, the NPT and the CWC, and has argued before the International Court of Justice that the existing body of international law indicates a prohibition on the use of nuclear weapons.³¹ Thus it should have no legally based objection to a pledge of no first use.

The main obstacles to pledges across the region covering all WMD are therefore the chemical weapons-related reservations of several Arab states and the nuclear policy of Israel, which are interrelated: several Arab states and the Arab League as a group are on the record as linking their refusal to join the CWC with Israel's refusal to join the NPT.³² However, Israel's stated policy that it "will not be the first to introduce nuclear weapons into the Middle East", taken at face value, is essentially a no first use policy. If all states in the region were to make NFU pledges relating to all WMD in parallel, their arguments regarding one another's WMD capabilities would nullify each other.

Conclusions

Understanding the energy–security link in the Middle East is crucial for progress toward a WMDFZ. Further nuclearization of the Middle East—including the development of nuclear energy programmes—is likely to prevent progress toward a WMDFZ, particularly in light of the controversy and sensitivity regarding the question of access to all aspects of the nuclear fuel cycle. The risk of nuclear proliferation inherent in any nuclear programme should be perceived as a matter of physical capability, complicated by the status associated with nuclear capability, rather than a question of trust. Informed domestic debate about real energy needs and security concerns can reveal alternatives.

The nuclear era is a relatively recent phenomenon in the context of the history of the Middle East, where the three cultures of Arabs, Jews and Persians have interacted and coexisted for centuries. For the same reason, the region has the potential to overcome and outlive the dangers and threats created by the nuclear era. This will require progress on regional peace and security that takes into account human and social elements, as well as WMD disarmament, and that begins with active efforts to de-escalate nuclear tension. Further analyses could explore the most logical order or sequencing of these and other efforts. For the present, any of the proposed elements of progress might be pursued independently, yet in parallel, with a view to identifying political openings and flexibility, and repeatedly reassessing the feasibility of these elements and others that stand to contribute to the goal of regional peace and security and a WMDFZ.

The relevance of both the Israeli–Palestinian conflict and WMD proliferation to regional security suggests an additional possible measure of political and symbolic value. The WMD threat is not a priority issue between Palestinians and Israelis, but the conflict between them is often cited, rightly or wrongly, as an obstacle to broader regional security, including arms control and disarmament. Today's Palestinian leaders could issue a decree stating that a future Palestinian state renounces all WMD and will join all WMD-related treaties. As a practical matter, such a decree would be largely symbolic, given the absence of Palestinian WMD programmes, but as a political gesture it would make a direct link between the peace process and WMD disarmament, and it would help set the tone and political approach needed for progress on both issues.

Notes

1. Shimon Yiftah, 1976, *The Nuclear Age in the Middle East* [in Hebrew], Tel Aviv, Am Oved Publishers.
2. *Ibid.*, p. 8.
3. For the purposes of this article, the Middle East is considered as including Iran, Israel, and the members of the League of Arab States, i.e. Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine (representatives of the Palestine Liberation Organization were recognized in 1976), Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen (although Comoros, Somalia and Sudan are not generally considered to be within the Middle East for the purposes of NWFZ discussions).
4. UN General Assembly resolution 3263 (XXIX), 9 December 1974.
5. Alan Dowty, 2001, "Making 'No First Use' Work: Bring All WMD Inside the Tent", *The Nonproliferation Review*, vol. 8, no. 1, spring, pp. 79–85.
6. Ahmed Esmat Abdel Meguid, Deputy Prime Minister and Minister of Foreign Affairs of Egypt, Letter dated 19 April 1990, UN document CD/989, 20 April 1990.
7. See, for example, UN Security Council resolution 687 (1991), 3 April 1991.
8. Resolution on the Middle East, in 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, *Final Document: Part I*, UN document NPT/CONF.1995/32 (Part I), Annex; 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, *Final Document: Volume I, Part I*, UN document NPT/CONF.2000/28 (Parts I and II).
9. This is the most recent statement of Israel's position: "Israel remains committed to a vision of the Middle East developing into a zone free of Chemical, Biological and Nuclear weapons as well as ballistic missiles. Yet we are also realistic enough to know that in the current realities of the Middle East, this noble vision is not going to materialize any time soon." Mr Meir Itzhaki, Representative of Israel to the Conference on Disarmament, "The Establishment of a NWFZ in the Middle East: Explanation of Vote", Geneva, 9 October 2007.
10. Michael Barletta and Erik Jorgensen, 1998, *Weapons of Mass Destruction Capabilities in the Middle East*, Center for Nonproliferation Studies, at <cns.miis.edu/research/wmdme/capable.htm>.
11. Barletta and Jorgensen, *op. cit.*
12. "Sarkozy Pushes for Nuclear Energy in MidEast", *Washington Post*, 20 January 2008.
13. *Ibid.*
14. "BAE Confirms £5bn Eurofighter Sale to Saudi Arabia", *The Times*, 19 August 2006.
15. The United States' seemingly conflicted position on Arab states' acquisition of civil nuclear technology also deserves mention, though further analysis is beyond the scope of this article.
16. Chairman's Working Paper, Preparatory Committee for the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, UN document NPT/CONF.2010/PC.I/WP.78, 11 May 2007, paragraph 40.

- See also Statement by HE Ambassador Norma Golcochea Estenoz (Cuba) on behalf of the Group of Non-Aligned States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Preparatory Committee for the 2010 Review Conference, 30 April 2007.
17. William J. Broad and David E. Sanger, "Fearing Iran, Arab States Seek Nuclear Power", *International Herald Tribune*, 15 April 2007, at <www.iht.com/articles/2007/04/15/news/nuke.php>.
 18. GlobalSecurity.org, *Israel Special Weapons Guide: Nuclear Weapons Stockpile*, at <www.globalsecurity.org/wmd/world/israel/nuke-stockpile.htm>.
 19. This view is reflected in NPT review process documents and the annual General Assembly resolution "The risk of nuclear proliferation in the Middle East" (sponsored by a number of Arab States), as well as annual requests for inclusion of an item on "Israeli Nuclear Capabilities and Threat" in the IAEA's General Conference agenda. See, for example, UN General Assembly resolution 62/56, 5 December 2007, UN document A/RES/62/56, 15 January 2008; IAEA document GC(51)/1/Add.1, 16 July 2007, and responses (documents GC(51)/25, 14 September 2007; GC(51)/32, 20 September 2007).
 20. The Arab Peace Initiative is a proposal endorsed by the Arab League, which offers peace and normalization of relations with Israel through a process of negotiation that addresses core outstanding issues such as Palestinian refugees' right of return and the status of Jerusalem. Israel has not accepted the offer to negotiate regional peace through this initiative because of disagreement over these core issues, although they are points of negotiation, not preconditions.
 21. Strategic depth refers to the availability of territorial space to wage offensive and defensive operations.
 22. Rebecca Johnson, 2007, "Rethinking Security Interests for a Nuclear-Weapon-Free Zone in the Middle East", *Disarmament Diplomacy* 86, autumn, at <www.acronym.org.uk/dd/dd86/86nwzfme.htm>.
 23. The terms "hard security" and "soft security" are used to distinguish between military security and underlying human needs that lead to insecurity, such as development, education and health. The terminology is problematic because the separation of these concepts, with the resulting separation of expertise and tendency to prioritize hard over soft security, undermines efforts and capacities to address root causes of all instability and conflict. The concept of "human security" seeks to address this link between defence and human needs.
 24. Greenpeace, 2007, *Energy [R]evolution - A Pathway to a Sustainable Clean Energy Future for the Middle East*, at <www.greenpeace.org/raw/content/mediterranean/reports/energy-r-evolution-a-pathwa.pdf>. See also Greenpeace, 2007, *Egypt and the Great Energy Debate*, at <www.greenpeace.org/raw/content/mediterranean/reports/egypt-and-the-great-energy-deb.pdf>.
 25. Felicity Hill, 2006, *Time for a Comprehensive Fissile Material Treaty*, Greenpeace International, at <www.greenpeace.org/raw/content/international/press/reports/comprehensive-fissile-material.pdf>.
 26. Weapons of Mass Destruction Commission, 2006, *Weapons of Terror: Freeing the World of Nuclear, Biological and Chemical Arms*, at <www.wmdcommission.org>, recommendation 12.
 27. Minister Plenipotentiary Amr Aboul, Deputy Permanent Representative of Egypt to the United Nations, Statement by Egypt at the Conference on Facilitating the Entry into Force of the CTBT, New York, 23 September 2005.
 28. State of Israel, Statement by Dr Itshak Lederman, Senior Director for CTBT Affairs and Special Projects, at the Conference on Facilitating the Entry into Force of the Comprehensive Nuclear Test Ban Treaty, Vienna, 18 September 2007.
 29. This proposal and the analysis that follows draw on Eitan Barak, "Regional No First Use Treaty: First Step in the Right Direction?" presented at a Greenpeace seminar, Tel Aviv, Israel, 15 February 2007, and on a forthcoming paper by Eitan Barak and Merav Datan.
 30. Jez Littlewood, 2004, "Strengthening the Role of the BTWC and CWC", in *Building a Weapons of Mass Destruction Free Zone in the Middle East: Global Non-Proliferation Regimes and Regional Experiences*, Geneva, UNIDIR and League of Arab States, p. 26.
 31. Note Verbale dated 19 June 1995 from the Embassy of the Islamic Republic of Iran, together with Written Statement of the Government of the Islamic Republic of Iran, International Court of Justice, Legality of the Threat or Use of Nuclear Weapons, at <www.icj-cij.org/docket/files/95/8678.pdf>.
 32. "Arab League Reiterates Rejection of Chemical Arms Ban Treaty", *Xinhua General Overseas News Service*, 8 March 1993, cited in Nuclear Threat Initiative, 2007, *Israel Chemical Chronology, 1948–2003*, at <www.nti.org/e_research/profiles/Israel/Chemical/3664.html>.

