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Biological and Chemical Weapons and the Prospective Disarmament Process in the Middle East

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Background paper

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Contents

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Abbreviations

ACRS	Arms Control and Regional Security
BWC	Biological Weapons Convention
BW	Biological Weapons
CBW	Chemical and Biological Weapons
CW	Chemical Weapons
CWC	Chemical Weapons Convention
DRDO	Defence Research and Development Organisation
EIF	Entry Into Force
INF	Intermediate-Range Nuclear Forces Treaty
MTCR	Missile Technology Control Regime
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
OPCW	Organization for the Prohibition of Chemical Weapons
START	Strategic Arms Reduction Treaty
UN	United Nations

1. Introduction

The Final Document of the 2010 Review Conference of the Nuclear Non-Proliferation Treaty (NPT) calls for a 'conference in 2012, to be attended by all States of the Middle East, on the establishment of a Middle East zone free of nuclear weapons and all other weapons of mass destruction, on the basis of arrangements freely arrived at by the States of the region, and with the full support and engagement of the nuclear-weapon States'.[1] The passage aims for regional inclusiveness and discerns a role for the five permanent members of the UN Security Council who are also the only possessors of nuclear weapons defined under the NPT.

The call brings chemical and biological weapons (CBW) into future arms control discussions for the Middle East. Consequently, a key issue for the conference will be to determine what role, if any, the 1972 Biological and Toxin Weapons Convention (BWC) and the 1993 Chemical Weapons Convention (CWC)—two global and comprehensive disarmament treaties—can play in furthering the ambition laid out in the NPT Review Conference document. Egypt, Israel and Syria are party to neither convention. Considering that they have thus far resisted international pressure to join those treaties, a crucial question will be how the diplomatic process that will follow the Middle East conference, assuming the conference is successful, can change their position.

2. The Status of CBW treaties in the Middle East

The Middle East is often presented as the region with low participation in global, multilateral arms control and disarmament treaties. This assessment is definitely correct when the previous forum that tried to control the acquisition of non-conventional weaponry, the Working Group on Arms Control and Regional Security (ACRS) of the Madrid peace process, met between 1992 and 1995. During that period, the CWC had not yet entered into force. Today, however, the overwhelming majority of Middle Eastern states are full party to the BWC and the CWC and therefore enjoy the security and economic benefits provided by these treaties (see appendix).

Only three core states are absent from the roster: Egypt, Israel, and Syria. Both Arab states are signatories to the BWC, while Israel has signed the CWC. They are all party to the 1925 Geneva Protocol prohibiting the use of CBW in armed conflict.

The two other states absent from the BWC and CWC are geographical outliers. Despite being a party to the much younger CWC, Mauritania has neither signed nor acceded to the Geneva Protocol and the BWC. The Republic of South Sudan acquired its independence on 9 July 2011, and could conceivably join all three agreements as a successor state once relations with Sudan stabilize. Oman and the United Arab Emirates never became party to the Geneva Protocol, but have assumed the full obligations and responsibilities of the CBW disarmament treaties.

[1] *The Middle East, particularly implementation of the 1995 Resolution on the Middle East*, in: 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document, NPT/CONF.2010/50 (Vol. I), Section IV, para. 7(a).

3. The Status of CBW in the Middle East

This section sketches CBW-relevant developments in the Middle East since 1945. The region has witnessed two major confirmed instances of chemical warfare (by Egypt in Yemen and Iraq's attacks against Iran and the Kurds) and a possible third one (by Libya in Chad). Despite hostilities and inflammatory rhetoric, none of the cases involved Israel. Today, only one country, Syria, appears to have significant chemical warfare capacity.

No instances of the use of biological and toxin agents as a means of warfare have occurred. Despite some official statements and reports in Western capitals, biological weapons (BW) do not appear to be part of the strategic equation between any two Middle Eastern states. Some countries do have the knowledge and infrastructure to develop and produce agents for offensive use within a modest time frame after a political decision to do so. That, however, does not include time to design, test and produce delivery systems, or the time required to test the agents and train troops in their use on the battlefield.

Some regional countries may be investing in the development and production of natural and synthetic poisons and toxins. Such substances have been used on occasion to kill or otherwise harm individuals in covert operations.

3.1 Chemical weapons

On 29 April 1997 – the date of entry into force of the CWC – three states in the Middle East stood accused of possessing chemical weapons (CW): Iraq, Libya and Syria. Iraq used a variety of CW in the 1980–88 war with Iran and in the suppression of the internal Kurdish insurgency. After Iraq's ejection from Kuwait in 1991, UNSCOM inspectors identified and destroyed what essentially amounted to the country's entire CW arsenal. Although there were some accounting discrepancies, the long-term presence of UN inspectors, extended surveillance of the country by the US and the UK, as well as UN-mandated restrictions on dual-use technology imports meant that Iraq was unable to maintain or reconstitute a chemical warfare capacity. The country could not train troops, develop and produce agents, or test delivery systems. After the 2003 invasion of Iraq, the US and the UK did not find anything that amounted to CW capacity, but have proceeded to destroy the remnants of the programme and munitions recovered from the Iran–Iraq War battlefields. Because both countries are destroying weapons and equipment outside the OPCW framework, their operations have become somewhat controversial (with criticism coming notably from Iran). Notwithstanding, Iraq must submit detailed reports accounting for past CW activities (including destruction) and OPCW inspectors must proceed with their activities inside the country. Some munitions remain in buildings destroyed by coalition forces, which today are deemed too dangerous to access. The OPCW, the US and Iraq are looking into options to resolve the matter. Aerial reconnaissance by the OPCW demonstrates that Iraq is progressing with the destruction of CW production facilities and that the damaged storage sites are undisturbed.[2]

Libya set up and operated a large CW production facility at Rabta during the 1980s and early 1990s. There were some allegations of Libyan CW attacks in Chad in 1987, but these have never been independently confirmed. On joining the CWC in 2004, Libya declared

[2] John Hart, Chemical weapon arms control and disarmament, in: *SIPRI Yearbook 2012: Armaments, Disarmament and International Security*, Oxford: Oxford University Press (2012), p. 400.

some 20 tonnes of mustard agent and aerial gravity bombs as the delivery system. By the time of the uprising in 2011, all declared delivery systems and much of the agent and precursors had been destroyed. After the overthrow of Gaddafi, the current regime has developed a new destruction schedule with the OPCW. In 2012 it has also declared a previously unreported cache of agent and munitions to the OPCW, indicating its commitment to the CWC.

Syria presently holds the largest CW stockpile in the Middle East. Its size and composition are unknown, but it is widely believed that it comprises various agents (VX and mustard; more recently, reports also speculate sarin) and different types of delivery systems (missiles and rockets, aerial bombs, and perhaps artillery shells). Syria's CW arsenal serves strategic purposes, more specifically as a weapon of last resort in the case of an existential threat. Although media reports and commentaries claimed that the statement by a Syrian Foreign Ministry spokesman on 23 July 2012 amounted to a confirmation of CW possession and expressed shock at the warning of CW use against foreign troops, the briefing merely corroborated what had been known for a couple of decades. In January 2009, President Bashar Assad had all but confirmed Syria's CW.[3] Some speculation about Iraq's transfer of CW to Syria prior and during to the 2003 war remains unsubstantiated.

Egypt had a CW programme at least in the 1960s, and used chemical warfare agents in the Yemen Civil War (1963–67).[4] This programme was reportedly scrapped after the 1973 Arab–Israeli War. A research and production facility operated in the outskirts of Cairo under the guise of a pesticide factory. The plant was reactivated in 1981 following a $12 million contract from Iraq, but President Anwar Sadat ordered it shut down. In the early 1990s, it was reported to be producing medicines.[5] In September 2012, a Kuwaiti newspaper reportedly quoting Egyptian security sources claimed that Egypt intended to use CW to 'smoke out' Al Qaeda-linked Salafist gunmen from the Sinai Peninsula.[6] Unless smoke or riot control agents were meant, the threat is in all likelihood baseless.

Iran was known to have had a CW production programme between 1988 and the early 1990s. It declared CW production facilities under the CWC, but no weapon holdings, which leads to some suggestions by the US that it was possibly hiding a secret stash. However, it is possible that Iran disposed of the agents and munitions shortly before signing the CWC or entry into force in a way that is incompatible with the convention (e.g., sea dumping).[7]

Israel has a widely publicized CW defence and protection programme. However, some uncertainty about its offensive dimensions exists, mostly due to (deliberate?) ambiguity. Prior to the country's signing of the CWC, the Foreign Ministry routinely stated that Israel would not be the first to introduce such weapons into the Middle East. Nevertheless, it is almost certain that the country launched an advanced development and production programme in the first decade of its existence. The crash of an El Al Boeing 747 transport plane near Amsterdam on 4 October 1992 (i.e., before the CWC was opened for signature) revealed that

[3] Interview with Syrian President Bashar Assad, in: *Der Spiegel*, (19 January 2009), available from URL <http://www.spiegel.de/international/world/0,1518,602110-2,00.html>.

[4] At the time of Egypt's military intervention Yemen was not a party to the Geneva Protocol.

[5] Mohamed Heikal, *Illusions of Triumph*, London: Fontana (1993), pp. 91–93.

[6] Al Rai newspaper (Kuwait), as cited in: Egypt mentions chemical weapons to scare Sinai terrorists, in: *DEBKA file*, 21 (September 2012), at URL <http://www.debka.com/newsupdatepopup/2324/>.

[7] John Hart, Roger Roffey and Jean Pascal Zanders (eds.), *Iran's Disarmament and Arms Control Policies for Biological and Chemical Weapons, and Biological Capabilities*, Umeå: Swedish Defence Research Agency (December 2003), p. 31.

the cargo contained three of the four precursors to sarin, including dimethyl methylphosphonate (DMMP). Although the compound has several legitimate civilian uses, the secrecy with which the investigation of the accident and the recovery and clean-up operations were conducted, fed speculation over its true purpose. Israel has also used toxic chemical compounds in individual assassination operations, including the use of fentanyl in an attempt to assassinate Hamas leader Khaled Meshal in Jordan in 1997.[8]

Besides state-run programmes, concerns exist in the Middle East about transfers of CW to terrorist entities and other non-state actors. In the 1970s and 1980s, Arab nationalist regimes (Egypt, Libya, and Syria) were thought to be capable of transferring such agents to Palestinian nationalist groupings; over the past 15 years the concerns shifted more to Islamic entities, notably Hezbollah and Hamas. Iran, and to a lesser extent Syria (perhaps as a conduit for Iran) have been implicated. No firm evidence to back up the allegations has emerged thus far. There have been, however, some reports of Palestinians poisoning fruit and other food exports from Israel over the past decades.

3.2 Biological weapons

Information about BW programmes in the Middle East after 1945 is sketchy. During and immediately after the Cold War several cases of reports and testimony alleged Arab BW development programmes, but they mostly lacked specificity.

The major exception was Iraq, who looked into BW during the late 1970s and again from the mid-1980s onwards. UNSCOM inspectors uncovered the extent of its weapon programme and were able to destroy much of it. According to UNSCOM data, Iraq worked primarily with the anthrax bacterium, botulinum toxin and aflatoxin, although its scientists were investigating weaponization of other agents too. Iraq developed several delivery systems, including warheads for ballistic missiles and gravity bombs. When the inspectors were forced to leave the country in December 1988, they had not been able to account for all amounts of agents, growth media and numbers of delivery systems. This allowed the US and the UK to claim that Iraq still possessed vast quantities as justification for their 2003 invasion of the country. Subsequent investigations by US and British teams revealed that Iraq had not reconstituted its BW programme.

Western sources often accuse Iran of pursuing an offensive BW programme in spite of its participation in the Geneva Protocol and the BWC. Although it has an extensive and advanced vaccine programme, public sources do not make it possible to conclude that the country violates its treaty obligations.

As with the chemical threat, Israel runs an extensive and relatively open biological defence programme at Nes Ziona. The country does not comment on any offensive dimension of its research and development activities (in line with its chemical and nuclear work). It has a sufficiently developed biotechnological research and production base to support an advanced BW programme or reach breakout capacity. There appears to have been an offensive BW programme shortly after the foundation of Israel, but it may have been abandoned later in favour of the nuclear option.[9] In contrast, research into a variety of toxins for covert use may

[8] For instance, Yossi Melman, A secret agent, in: *Haaretz*, (31 December 2004), URL <http://www.haaretz.com/hasen/spages/521658.html>. Russian special forces employed fentanyl in the Moscow theatre hostage crisis in October 2002.

[9] Avner Cohen, Israel and Chemical/Biological Weapons. History, Deterrence, and Arms Control, in: *Nonproliferation Review*, (Fall/Winter 2001).

still be continuing now. During Israel's war of independence in 1947–48, Arab officials attributed some disease outbreaks to Jewish insurgents.[10]

Egypt, Libya and Syria are not generally believed to have set up BW-related programmes with perhaps the exception of some elementary research work. In the aforementioned Spiegel interview, President Assad denied Syria's interest in this weapon category. No reports seem to implicate other Arab countries in BW activities.

4. Potential complications resulting from the mandate

Despite the NPT's sole preoccupation with nuclear weaponry, the call for the Middle East conference brings CBW, as well as delivery systems for all types of non-conventional weaponry, into the ambit of the discussions. This will raise a welter of issues, whose intricate complexity, as well as the need to coordinate and integrate the discussions on the separate arms categories, may defy the best efforts of the most experienced diplomats. No example exists of a negotiated weapon-free zone covering *all* categories of non-conventional weapons (the exceptions being some uninhabited expanses, such as Antarctica, the seabed, or outer space). Nuclear weapon-free zones have been created in clearly defined geographic areas in which nuclear weapons were absent from the military equations or in which they had already been eliminated prior to the negotiations. Several regional agreements (but not treaties) on CW were agreed ahead of finalisation of the CWC. However, the one major effort to create a chemical weapon-free zone in Europe in the 1980s (when CW were still deployed on the continent) ended in failure, although the exercise nevertheless benefited the global negotiation of a chemical weapon ban. One regional BW agreement was concluded in 2001 in anticipation of the (failed) protocol to the BWC.

Bearing in mind that, politically and psychologically, nuclear weapons and their strategic delivery systems are likely to command most diplomatic and analytical attention, the possibility exists that participants in the Middle East conference will take the BWC and CWC as their point of departure to resolve CBW-related issues. However, as noted earlier, only three countries critical to the regional peace process remain outside both conventions: Egypt, Israel and Syria. The motives for maintaining their respective positions differ fundamentally from each other, which leads us to ask whether the treaties are the appropriate tools for addressing the issues underlying those positions.

5. Nature of legal regimes

The international legal regimes governing the legitimacy of the individual weapon categories differ fundamentally from each other. Whereas the international community adopted a fragmented approach to the control of nuclear weapons—individual agreements regulate aspects of the armament dynamic, are discriminatory, or introduce a total prohibition on their presence in demarcated geographical spaces—chemical and biological weapons are each the subject of a specific convention that sets a universal, fully comprehensive and non-discriminatory norm against their development, acquisition, possession and use. The prohibition applies to agents and equipment designed to be used with such agents. By drawing on the general purpose criterion, both conventions address the dual-use problem: the

[10] W. Seth Carus, *Bioterrorism and Biocrimes. The Illicit Use of Biological Agents Since 1900*, (Center for Counterproliferation Research), Washington, DC: National Defense University (2001), pp. 87–88.

technologies as such are not banned, but rather certain purposes to which they may be applied, thus leaving legitimate civilian, defensive and protective, or prophylactic purposes unaffected. The general purpose criterion also avoids limitation of the treaty's scope to the technologies that existed at the time of the negotiations. As a result, both conventions cover any future agent or delivery system. States parties update their understanding of the treaty's scope by taking the latest scientific and technological developments into consideration at quinquennial review conferences. While the BWC and CWC govern inter-state behaviour, they also require a party to transpose the international obligations into domestic law, thus extending the prohibition to any natural or legal person on its territory or any of its nationals working abroad. With respect to CBW, UN Security Council Resolution 1540 (2004) extended the latter principle to all UN members, irrespective of whether they are party to the BWC or CWC.

With the exception of some plurilateral technology transfer control arrangements, such as the Missile Technology Control Regime (MTCR), the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies and some other control lists and codes of conduct, no global or regional regimes limiting the development, possession or use of delivery systems for non-conventional ordnance exist. The BWC and CWC do prohibit equipment specifically designed for use with the proscribed warfare agents. This thus includes warheads, bombs and spray tanks, rockets and other dissemination devices, but not the carriers, such as ballistic missiles, aircraft, artillery guns or rocket launchers.

6. Doctrinal linkage of non-conventional arms categories

Fundamental reasons exist why major disarmament and arms control treaties only cover discrete (and in most cases, single) weapon categories or subcategories. More than anything else, functional equivalence determines whether an opportunity for arms reductions will present itself. Weaponry in a functionally equivalent relationship performs a more or less similar role in the military doctrines of two or more countries (e.g., US and Soviet/Russian strategic nuclear missiles in the START treaties, intermediate-range ground-launched nuclear missiles in the INF treaty). As quantitative or qualitative augmentation of weaponry in a functionally equivalent relationship is likely to elicit a similar response from an adversary, no extra security is achieved despite the higher level of armament. If the adversary responds in a different arms category, an asymmetrical functional relation may exist (e.g. missile defences vs. missiles in the current NATO–Russia contention). In contrast, both sides may reap financial and other benefits from reducing or eliminating their weapon holdings without damaging their respective security postures.[11] In the Middle East, however, nuclear, biological and chemical weapon capacities are distributed unequally across the region. Where the weapons exist, they perform dissimilar doctrinal functions or, alternatively, rivals assign similar doctrinal roles to different weapon categories without necessarily building a functional relationship between them (e.g. existential survival in the case of Israel's nuclear weapons and Syria's chemical arsenal). Functional equivalence is equally non-existent in cases of a power holding a (regional) monopoly on a class of weaponry. Finally, the many-to-

[11] The operation of functional equivalence is described in Jean Pascal Zanders and Elisabeth M. French, Article XI of the Chemical Weapons Convention: Between irrelevance and indispensability, in: *Contemporary Security Policy*, vol. 20, no. 1 (April 1999), pp. 64–69.

one security relationships many Middle Eastern states perceive themselves to be locked into do not ameliorate the opportunities for disarmament either. Thus, for example, even if Israel and Syria were to agree on mutually reducing or eliminating their nuclear and chemical arsenals, the accelerating strategic competition with Iran would, in all likelihood, prevent Israel from rescinding its nuclear deterrent.

In summary, the absence of a critical precondition that enabled the conclusion of the BWC and the CWC is non-existent for the three hold-out states in the Middle East,[12] meaning that arms control approaches other than adherence to formal and global treaties may presently be more useful to explore. The persistent political linkage of all non-conventional weapon categories with each other without considering their respective doctrinal roles, as exemplified by Egypt's refusal to become a party to the BWC and CWC to pressure Israel into joining the NPT, also diminishes the potential contribution of both conventions in the early stages of the upcoming Middle East process.

Delivery systems for non-conventional payloads may range from home-made rockets and artillery shells over air-delivered bombs and missiles to intermediate-range ballistic missiles. In this realm too, capacities may vary considerably between individual Middle Eastern countries.

7. Verification: Contribution of the CWC to the Middle East disarmament process

The CWC is undoubtedly the most complex arms control or disarmament treaty today and has proven its ability to meet the goals set by the negotiators in the 1980s and early 1990s. In itself, it represents a remarkable compromise between the interests of individual states, the chemical industry and available technological options to ensure the treaty's integrity. From that angle, it appears a logical proposal to apply the CWC to the Middle East as part of an effort to achieve comprehensive disarmament of non-conventional weapons. Once the foundations have been agreed, the CWC and its verification machinery will undoubtedly contribute to the resilience of the regional disarmament framework. However, as a tool to reach such a framework it may prove to be less effective. Several factors come into play here:

- The CWC verification machinery is very intrusive for government agencies, military installations, and civil industry. With regard to challenge inspections, there is no right of refusal. All types of onsite inspections have provisions for managed access. While Middle Eastern countries party to the CWC have no problems with these procedures, for the remaining countries immediate exposure might pose an important psychological threshold. The obligation to report all CW programmes and identify related infrastructure (production facilities, storage sites, etc.) since 1 January 1946 may raise a similar psychological barrier (as it does for South Korea, which refuses to be formally identified as a CW possessor in documents by the Organisation for the Prohibition of Chemical Weapons, the OPCW).

[12] See Zanders and French, op. cit., for the role of functional equivalence in the CWC universalisation process. For the evolving condition of functional equivalence as a consequence of scientific and technological developments and the challenges to the BWC, see Jean Pascal Zanders, Challenges to disarmament regimes. The case of the Biological and Toxin Weapons Convention, in: *Global Society*, vol. 15, no. 4, (2001), pp. 361–85.

- Despite its elaborateness, the verification regime is most detailed for the destruction of CW (which in the 1980s was a primary goal). This dimension of the treaty may be of lesser relevancy to achieving comprehensive disarmament in the Middle East.
- The other dimension, i.e. maintaining confidence in compliance that no future CW are being developed and produced in contexts of changing international relations and security, as well as rapidly evolving science, technology, trade and industrial production processes, will be more relevant to the Middle East once a framework for non-conventional weapon disarmament has been achieved. This is the area where Middle Eastern states will interact with each other, hopefully in a context of growing confidence in long-term compliance. This verification of legitimate activities (industry, trade, etc.) is now moving to the fore. Presently, the tools are less developed than those for overseeing weapon destruction and may need to be adapted over the next years if the same level of confidence as with CW destruction is to be achieved. The CWC has the instruments to enable amendments or other types of changes. States parties will, however, have to adopt a common vision on the future role of the convention in order to move ahead with such changes.
- The ultimate tool for confirming suspected non-compliance, the challenge inspection, has never been used. Some commentators perceive this as a weakening of the convention, and some experts from the Middle East view this as a major impediment if the CWC is to play a role in regional disarmament. Perhaps negotiators were too ambitious in their design of the challenge inspection procedure; perhaps the post-Cold War world proved to be more cooperative than anticipated and other mechanisms to address compliance concerns (such as bilateral consultations) turned out to be more effective in the new global context; perhaps the conditions that might have warranted the launch of a challenge inspection never materialised; perhaps the national intelligence data that must be the foundation for any call for a challenge inspection was never as firm as people might wish; and so on. Irrespective of possible reasons, other parts of Article IX to address non-compliance concerns are widely regarded to be efficient and effective. Meanwhile the OPCW is conducting increasingly sophisticated exercises to test and perfect challenge inspection procedures under realistic conditions.

At the same time, current dynamics in the Middle East may also not favour the CWC as a tool in the overall plan to achieve regional disarmament. Nonetheless, depending on the actions taken, the CWC may become an important tool for stabilization and consolidation of the regional disarmament framework:

- Presently, only Syria is known to possess CW. In view of the current civil war, it is most likely that soon after the current regime falls, international assistance will be available to secure the stockpiles. Even though it may still take a while before Syria joins the convention—international pressure tied to post-conflict assistance will play a big role—it is possible for the international community (e.g., via the UN) to call in OPCW assistance. The more important point for this note is that elimination of Syria's CW would take place

irrespective of a regional disarmament framework. The CWC, both with its expertise in overseeing destruction operations and reporting on progress, could take over quickly, with both Libya and Iraq serving as models.

- Some ambiguity exists regarding Israel's research and development activities in the CW area, although no indicators are available that it stockpiles such weapons or trains its troops in their offensive use. The greater problem for Israel may be its inability to open up its civilian and military establishments to international inspectors. Given the physical integration or geographic proximity of facilities where research and development in the biological, chemical and nuclear areas take place, there may be concern over inspectors possibly acquiring details of activities unrelated to CW. Nevertheless, having participated in the CWC negotiations, Israel understands the managed access procedures, and should be able to design a verification and inspection process that meets OPCW standards while safeguarding its legitimate security interests. India faced a similar problem with its Defence Research and Development Organisation (DRDO), which had actually produced approximately 1,000 tonnes of chemical warfare agent and munitions, and has managed to resolve them. Furthermore, any party to the CWC has the right to refuse inspectors who are nationals from another state party with which it has adverse relationships. Such refusal is formally communicated to the OPCW in advance, not at the time an inspection team is being assembled.
- Egypt's opposition to the CWC is politically motivated and tied to Israel becoming a party to the NPT. Today, it stands isolated in this position. If Syria's regime collapses and the international community moves to secure and eventually eliminate the CW stockpiles, this may remove Israel's reluctance to ratify the CWC (assuming that Israel's position is rooted in security, rather than ideological considerations). In this way, the country could quickly become the sole non-party to the CWC. However, it is not clear whether the current leadership in Egypt would show the same type of opposition to multilateral disarmament as the previous regime (although it still considers the universalization of the NPT primary). It is presumed that if the country were to become party to the CWC, most verification activity in Egypt would relate to its past CW programmes to ensure that no installations could be reactivated if mothballed or converted to other purposes.

8. Conclusion

At this juncture, the overall security mindset in the centre of the Middle East approaches that of a zero-sum game, which is not conducive to arms control or disarmament. It facilitates domestic arguments that the gravest dangers are external. Immutability equals stability in such a context. Recent political upheavals in the Middle East have introduced a factor of uncertainty in present and future regional security interactions. However, they also offer opportunities for change, particularly with respect to everyday cooperation on a mundane level. Bottom-up levels of cross-border cooperation—be it in science and technology, industry and trade, health and disease surveillance, or any other area—can promote dialogue, including on security issues. Such activities could thus be critical to enabling national leaders

to modify their public discourse over time and, as a result, alter the framework for considering and discussing national security interests.

Since the 1990s, some major developments took place, including the entry into force of the CWC, the participation of a growing number of Middle Eastern states in the BWC and CWC, and the verified nuclear, chemical and biological disarmament under international supervision of some regional state actors. Opportunities offered by international arms control, disarmament and non-proliferation treaties, whether in terms of security guarantees or possibilities to promote regional cooperation, should be explored to the fullest. However, mere universalization of those treaties with a view of achieving a Middle East zone exempt from non-conventional weapons may not be the preferred route as it would ignore underlying requirements for regional peace and stability that are central to disarmament. Indeed, disarmament treaties create their own realities within the boundaries set by agreement-specific definitions and through daily practices. These do not necessarily correspond to the realities as perceived by the local population or meet the demands for security and compliance assurances in zones of conflict. Even if the Middle East process were able to reconcile the ambitions of global treaties with perceptions on the ground, fundamental differences in the nature of the arms control and disarmament agreements, the scope of their coverage and how firmly established they are as normative will inescapably produce problems of coordination and integration of the discussions of the various arms categories.

The question thus arises whether other measures should not prepare the ground for the BWC and CWC to become relevant tools in buttressing security in the Middle East. The successes – both at the intermediate and final stages – of prospective arms control and disarmament processes would then inevitably lead to greater confidence that global treaties do not undermine national or regional security.

Appendix: Middle Eastern States party to the BWC and CWC

(As of 30 September 2012)

Country	Geneva Protocol [EIF: 8/02/1928]	BWC [EIF: 26/03/1975]	CWC [EIF: 29/04/1997]
Algeria	8/01/1992	22/07/2001	29/04/1997
Bahrain	20/10/1988	28/10/1988	29/04/1997
Egypt	6/12/1928	[Sign: 10/04/1972]	
Iran	3/08/1929	22/08/1973	03/12/1997
Iraq	7/04/1931	19/06/1991	12/02/2009
Israel	22/01/1969		[Sign: 13/01/1993]
Jordan	10/10/1976	30/05/1975	28/11/1997
Kuwait	3/01/1971	18/07/1972	28/06/1997
Lebanon	3/03/1969	26/03/1975	20/12/2008
Libya	17/10/1971	19/01/1982	05/02/2004
Mauritania			11/03/1998
Morocco	27/07/1970	21/03/2002	29/04/1997
Oman		31/03/1992	29/04/1997
Qatar	18/04/1976	17/04/1975	03/10/1997
Saudi Arabia	10/01/1971	24/05/1972	29/04/1997
South Sudan			
Sudan	22/4/1976	17/10/2003	23/06/1999
Syria	11/09/1968	[Sign: 14/04/1972]	
Tunisia	15/05/1967	18/05/1973	29/04/1997
Turkey	25/05/1929	25/10/1974	11/06/1997
UAE		19/06/2008	28/12/2000
Yemen	26/01/1971	01/06/1979	01/11/2000