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Syrian Chemical Weapons: The Danger Within

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Introduction

The Syrian case is a unique one. A country with a WMD-armed capability has never witnessed civil strife before. The active involvement of terror groups like Hezbollah, Hamas and al-Qaeda in Iraq coupled with the weakening hold of the Assad regime over large swathes of the country makes the situation grim. This raises the very real spectre of Syrian chemical weapons and missiles falling into the hands of these terror groups.

Given the ongoing civil war in the country, Syria's neighbours and the West have been concerned about the safety and security of the chemical and biological weapons in Syria.¹ In a bid to possibly allay these fears, the Syrian Foreign Ministry spokesperson Dr. Jihad Makdissi made a statement at a televised news conference on July 23, 2012.² In the statement, Makdissi said,

“Any chemical or bacterial weapon will never be used—and I repeat will never be used—during the crisis in Syria regardless of the developments. All of these types of weapons are in storage and under security and the direct supervision of the Syrian armed forces and will never be used unless Syria is exposed to external aggression”.³

The statement is crucial for several reasons. Most importantly, Makdissi's statement is the first public admission by the Assad regime of possessing stockpiles of chemical and biological weapons.⁴ While the statement reiterates the Syrian regime's long-standing policy of not using chemical weapons against its own population, it also lays down an important “red line.” Possibly, learning from the treatment meted out to Tripoli after it gave up its chemical weapons, Syria has made it clear that it will not use these weapons “unless Syria is exposed to external aggression”.

Makdissi's statement can also be seen as an attempt on the part of the Assad regime to reassure the international community that the chemical weapon stockpile continues to remain under its firm control.

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In this context, a recent statement by Amos Gilad, head of the Israeli Defence Ministry's political-defence department that Syria does remain in full control of its facilities assumes significance.⁵ Interestingly, media reports quoting American intelligence officials indicate that the al-Assad regime has in fact been consolidating its CW stockpile. The regime has been moving its chemical and biological arsenal away from northern parts of Syria which have seen more hostilities.⁶ While the consolidation could be seen as attempts at securing the CBW stockpile by removing them from harm's way, it could also be seen as a means of lending greater credibility to Syrian assertion of its "red lines" and deter any foreign military intervention.

Current Situation in Syria

The seventeen-month old civil war currently underway in Syria has seen several ups and downs. The fighting has definitely spread across Syria with more and more areas witnessing pitched battles between the rebel and Assad forces. Large swathes of areas to the north and east of Aleppo and in the centre of Syria between Idlib and Hama are under de facto rebel control. Major cities like Aleppo, Idlib, Homs, Damascus, and Suwayda have been facing the brunt of the civil war.⁷ There have also been several high profile defections by senior diplomats like Syrian Ambassadors to Iraq, the United Arab Emirates, Cyprus, Armenia and the Charge d'affairs in London.⁸

While the defection of the Syrian diplomats might embarrass the regime, defection of senior military brass like Major General Adnan Silou, former head of Syria's chemical weapons programme and General al-Sheikh will hurt the regime more in the longer run. In addition, defector accounts point to about 60,000 absentees with an additional 30,000 having joined the opposition forces leaving the ranks of the Syrian Army. Despite the large number of desertions and absenteeism from Syrian Army ranks, the Assad regime is believed to have several loyal units which comprise of about 70,000 soldiers. Though these defections do point to weakening of the vice like grip the Assad regime wields over the country, the situation is likely to be a long drawn one, with the end nowhere in sight.⁹

The Western media has tried to use the desertions from the Syrian Army and diplomatic corps to paint a picture of an imminent collapse of the Assad regime. However, it does not seem likely that the regime will disappear in a hurry. Firstly, the elite military and intelligence forces like the Republican Guards, the General Security Directorate, and the Fourth Division of the Syrian Army continue to remain loyal to Assad.¹⁰ This is expected given that a majority of the rank and file of these elite forces are comprised of Alawi sect, with many in key positions belonging to Assad's own Numaylatillah clan and Matawirah tribe within the Alawites.¹¹ In many cases, these elite forces are commanded by family members.¹² Over the past four decades, the Assad regime has cultivated loyalties amongst Sunni, Christian, and Druze businessmen especially in Damascus and Aleppo, the nerve centres of Syrian economy and home to one-third of Syrian population.¹³ Given this situation, the continuing loyalty of these groups cannot be discounted as it is in their interest that the regime continues in power.

Recent bomb attacks by rebel groups on prominent government buildings which have led to deaths of senior members of Assad's inner circle, while a definite setback to the regime, also point to the growing

capabilities and strength of the rebel forces. On July 18, 2012, the Syrian regime suffered a serious setback when a powerful bomb blast in the headquarters of the Syrian National Security Council in the al-Rawda area of Damascus killed three members of Assad's inner coterie. Those killed included his Assad's brother-in-law General Assef Shawkat and the Minister of Defence Dawoud Rajha.¹⁴ Russian Foreign Minister Sergei Lavrov captured the significance of the attack when he stated that the attack signified the beginning of a “decisive battle” in Syria.¹⁵ Since then there have been more such daring attacks by rebel forces especially targeting the regime's air force in a bid to neutralise the regime's airpower advantage. August has witnessed large attacks by rebel forces on an air base near Aleppo and the Taftanaz air base in eastern Syria.¹⁶

Syrian Chemical Weapons

Syria has the largest chemical weapons programme in the Middle East with over fifty suspected chemical and bio-weapon storage and production facilities.¹⁷ It operates large CW production facilities at al-Safir, Hama, Masyaf, Homs and Latakia.¹⁸ In addition to two munition storage sites at Khan Abu Shamat and Eurqlus, there are storage sites spread over a dozen sites across the country.¹⁹ In addition, Syria also runs a chemical weapons research facility near Damascus.

Damascus's chemical weapons stockpile is believed to run into several hundred tones of mustard blistering agents. Syria is also believed to possess large stockpiles of the deadly nerve agents like Sarin and VX. It is suspected to have stored mustard agents in bulk form and other agents in 'binary' form which make them safer to handle, transport and easier to use.²⁰ Syrian CW stockpile is believed to be deliverable by aerial bombs, ballistic missiles and artillery rockets.²¹

Syria has never signed or ratified the Chemical Weapons Convention (CWC). It has declined to become party to the CWC until all weapons of mass destruction have been eliminated from the Middle East. While Syria has signed the Biological and Toxic Weapons Convention (BTWC) in 1972, it has never ratified the treaty.²² Syria is a signatory to the 1925 Geneva Protocol which it signed in 1968. The Geneva Protocol bans the use of chemical and bacteriological methods of warfare.

The Syrian programme is believed to have begun in 1973 with the initial CW capability having been transferred from Egypt in the run-up to the October '73 war with Israel.²³ Syria however did not use the weapons against Israel in the Yom Kippur War. The Syrian CW programme is believed to have got underway in late 1970s or early 1980s. It is believed to have received foreign assistance mainly from Egypt, the Soviet Union, North Korea and Iran.

Syria has received considerable assistance in its CW programme from Russia and the former Soviet Union. Russia's Oriental Petrochemical Industry (VNKHK) and Syria's Environmental Studies Research Centre (ESRC) are believed to have collaborated on chemical weapon projects. It is suspected that Mustafa Tiaess of the ESRC and former Soviet chemical warfare expert, Anatoliy Kuntsevich collaborated in the late 1990s which culminated with the Soviet expert allegedly providing Syria with CW precursors prior to his death.²⁴ It is also suspected that the US\$14.6 million in technical assistance and

equipment provided by the European Union to the Syrian Ministry of Industry could have been diverted by Damascus to the CW program. Given the fears of diversion, the EU built in checks into its agreement to verify the actual end use of the equipment.²⁵ However, such checks have been suspended as part of the EU sanctions on Syria since May 2011.

Syria and Iran have had a long standing cooperation in the field of chemical weapons. Iran is believed to have assisted Syria in setting up four or five precursor chemical weapons facilities in the country. This assistance most likely involved assistance in form of design support, equipment and visits by engineers from Iran's Defense Industry Organization (DIO). News reports also indicate an agreement between Iran and Syria to provide financial assistance to the tune of US\$ 1 billion which was reached during President Ahmadinejad's visit to Damascus in 2007. Syrian students are believed to have been trained at the Higher Institute for Applied Science and Technology (HIAST) of the University of Tehran.²⁶

Apart from selling variants of Scud missiles to Syria, North Korea is suspected to have shared technical know-how about mounting CW warheads on missiles. Following the initial assistance and transfer of CW capability by Egypt prior to the 1973 Arab-Israeli War, Egypt is believed to have recently hosted students from the Syrian Scientific Research Council (SSRC)-believed to be nerve centre of Syria's CW and BW programs-at the Egyptian National Research Center.²⁷

Writing in the *Journal of Strategic Security*, Caitlin A. Buckley seeks to draw lessons that could be applied to Syria from the Libyan intervention. Buckley says, "On an abstract level, the circumstances in Syria are similar to the circumstances in Libya that precipitated the NATO intervention considering that the citizens have been protesting poverty, lack of democracy, and corruption, and their protests are being violently suppressed by a leader, and thus begging for a response from the international community to interrupt the killings of citizens".²⁸

However, Buckley goes on to say that, the situation in Libya and Syria are very different given that Russia, China and Iran are opposed to military intervention. The Arab League too is pushing for initiation of dialogue. Moreover, there is a fair amount of sectarian tension in Syria. Given this, French Foreign Minister Alain Juppe, points to the dangers of arming the opposition groups which he states "could result in a catastrophe even larger than the one that exists today".²⁹

One could not agree more with Buckley, in the realm of chemical weapons, it would not be prudent to draw lessons from the Libyan example and try to use them in Syria. This is because of the fact that the CBW capabilities that Libya and Syria possess are completely different. As a result of the variance in their capabilities, the dangers that both countries pose are also qualitatively different.

When Libya joined the Chemical Weapons Convention (CWC) in January 2004, it made a declaration to the Organisation for the Prohibition of Chemical Weapons (OPCW) wherein it declared its stockpiles and capabilities, which were subsequently verified by the OPCW. The Libyan chemical weapons stockpile largely comprised of mustard gas. It included 24.7 metric tonnes (MT) of sulphur mustard; 1,390 MT of precursor chemicals; 3,563 unloaded chemical weapons munitions (aerial bombs) and 3 former chemical

weapons production facilities.³⁰ By the time the Libyan conflict began in February 2011, more than half of the mustard gas stockpile and about 40% of the precursor chemicals had been destroyed as a result of OPCW verification and disablement programs.³¹ One of the three chemical weapons facilities had been irreversibly destroyed while the other two facilities had been converted into pharmaceutical plants after approval by the Executive Council of the OPCW. Moreover, the location of the remaining stockpile was well known, guarded and monitored throughout the conflict. Most importantly, Libya could only air-drop these weapons which did not amount to an effective military threat.

Unlike Libya, Syria has never signed or ratified the Chemical Weapons Convention (CWC), it has signed but withheld ratification of the BTWC. Damascus is however a member of the 1925 Geneva Protocol. As compared to Libya, Syrian CW stocks are believed to be much larger and are weaponized to be delivered via ballistic missiles, artillery shells and aerial bombs. Most importantly, it is possible that there could still be Syrian CW production and storage facilities which remain unknown to the international community.

Syrian Biological Weapons

When it comes to the question of the nature and extent of the bio-weapons capabilities of Syria, given the slow trickle of credible information, the house is more divided. In 1990, US Defence Secretary, Dick Cheney, stated that Syria was amongst ten countries that “have, or may have, biological warfare programs.”³² In the 2011 unclassified report to the Congress on Acquisition of technology related to WMD, the US Director of National Intelligence (DNI) states that “Syria's biotechnical infrastructure is capable of supporting BW agent development”.³³

On the other hand, experts like Leonard Spector, testifying before the Subcommittee on Terrorism, Nonproliferation, and Trade, Committee on Foreign Affairs, U.S. House of Representatives, concede that while biological weapons could be an issue before the international community while tackling the Syrian case, there is little credible information on the extent of the programme.³⁴ Dr. Jill Dekker, a consultant to NATO's Defense Establishment is of the view that while very little is known publicly about the Syrian BW program, it does not lessen the dangers it poses in any way. The Syrian BW program is believed to be centered on the Syrian Scientific Research Council (SSRC) near Damascus. Dr. Dekker believes that the advanced nature of the Syrian chemical weapons program has distracted the West from the nature and extent of the country's biological weapons capability. Syrian BW capability draws upon former Soviet programs and has received support from North Korea and Iraq. Importantly, Syria is suspected to be fairly advanced in terms of weaponization and dispersal techniques which were possibly shared with Damascus by the Iraqis.³⁵ Though there is concern of Syria possessing bio-weapons, credible information which enables one to assess the nature and scope of the program remains scarce.

Syrian Delivery Vehicles

Syria is believed to possess an estimated 700 Scud missiles and its variants like Scud-B, Scud-C and Scud-D in addition to the short-range solid fuelled SS-21.³⁶ This large arsenal of Scud variants has been acquired by Syria through imports from North Korea as well as by way of setting up a domestic

production capability with the help of the Chinese and the Iranians.³⁷ In the 1970s and '80s, Damascus relied on its client status to acquire FROG-7, Scud-B and the SS-21 from the Soviets.³⁸ Iran in the 1990s is believed to have provided Damascus with the technical assistance to produce solid-fuelled rocket motors. Subsequently in 1991, Syria is suspected to have purchased about 150 Scud-C missiles from North Korea. In September 2000 and January 2007, Syria is believed to have tested a North Korean 700km Scud-D missile.³⁹

Of the 700 odd missiles in Syria's arsenal, between 100-200 Scud missiles are believed to be capable of carrying warheads loaded with sarin nerve gas. Additionally, mustard gas and sarin are suspected to be stockpiled in forms which could be used in air-dropped bombs and artillery shells.⁴⁰ As compared to Libya, which could only air-drop its munitions, Syria possesses missiles which can be used to deliver its chemical and biological weapons. This capability makes the situation much more dangerous and qualitatively different from the one which existed in Libya.

The road ahead is paved with dangers

Given the advanced nature of Syria's chemical weapons and the large missile arsenal, one real danger is the likelihood of these weapons falling into the hands of the jihadi groups in case the Assad regime collapses. These groups are very much capable of spirited away these weapons into Iraq or Lebanon given Syria's porous borders. Another danger in light of Makdissi's statements is the use of these weapons by the Assad regime in case of military intervention that puts the survival of the regime at risk. There is also a possibility of renegade commanders resorting to use of the chemical weapons-if the regime survival is in doubt—with Assad either being unaware of the decision or unable, unwilling to prevent their usage even if he is aware of the decision.

The international community led by the West has been trying very hard to drive home the point that using such weapons would be inimical to Syria's interests and Assad's survival. Many countries including the US and Russia have been trying to press Syria to abide by its commitment made under the Geneva Protocol in order to prevent any possible use of chemical weapons by Damascus in the ongoing conflict. In a statement the Russian Foreign Ministry said, "The Russian side proceeds from the assumption that Syrian authorities will continue to strictly adhere to the undertaken international obligations."⁴¹ The American Secretary of State, Hillary Clinton speaking at a press conference along with the Turkish Foreign Minister at Istanbul, said that the use of chemical weapons would be a red line for the world.⁴²

The international community has definitely been on the overdrive to put in place plans to safeguard the Syrian WMD stockpile. Israeli leaders have even spoken of plans to destroy Syria's capability in case of a collapse of the Assad regime.⁴³ However, given the strong air defences Syria possesses, this would not be an easy task to carry out. Moreover, unlike Iraq (Osirak) or Syria (al-Kibar), Syrian chemical weapon facilities are dispersed across the country. The possibility that not all the storage and production facilities might have been identified further complicates the issue.⁴⁴ Further, such strikes do not in any way guarantee the achievement of the purported objective behind such a gambit, which is to prevent the weapons and their delivery platforms from falling into the hands of the jihadi groups.

The situation in Syria is unprecedented. The active involvement of jihadi terror groups like Hezbollah and the al-Qaeda, with an evinced interest in acquiring these weapons makes the situation extremely dangerous. The sudden collapse of the Assad regime—as opposed to a gradual, coordinated power shift—could result in these weapons and the means of delivering them, falling into the hands of these groups. Though it does not seem that the world will see the back of Bashar al-Assad any time soon, securing Syrian chemical weapons in case of such an eventuality is something the world has to give some serious thought to.

Even in a post-Assad situation, the dangers these weapons pose are not likely to ease. Ensuring the new government gives up the CW stockpile and in a verifiable manner will be a tricky task given that the new administration might view these weapons as a bargaining chip to be used in any future negotiations with Israel. With the lack of a central authority the weapons could also be used by the Sunni terror groups against the Shiite (Alawite) and Christian minority.⁴⁵ The situation in Syria is truly a WMD nightmare.

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