The Future of Chemical Disarmament in an Eroding Global Order

Workshop Summary

February 7-8, 2023

Center for Global Security Research
LAWRENCE LIVERMORE NATIONAL LABORATORY
Workshop Summary

The Future of Chemical Disarmament in an Eroding Global Order

Center for Global Security Research
Livermore, California,
February 7-8, 2023

Prepared By: Khrystyna Holynska, Danyale C. Kellogg,
Donghyeon N. Kim, Tuan H. Nguyen, Madison P. Raasch, Brad Roberts

On February 7-8, the Center for Global Security Research (CGSR) at Lawrence Livermore National Laboratory (LLNL) hosted a workshop titled “The Future of Chemical Disarmament in an Eroding Global Order.” This workshop brought together over 100 participants drawn across the policy, military, and technical communities from nine countries and the Organization for the Prohibition of Chemical Weapons (OPCW). The workshop aimed to examine: (1) the transformation of OPCW from an organization whose current primary mission is to verify and monitor the destruction of declared chemical weapons (CW) stockpiles to one that is focused on preventing their re-emergence and (2) the fate of multilateral arms control regimes such as the Chemical Weapons Convention (CWC) and multilateralism in an eroding global order.

Discussion was guided by the following key questions:

- What lessons can be learned from the first 25 years of the treaty regime?
- What technical and political challenges lie ahead?
- How will new geopolitical problems impact the regime?
- What are the prospects for continued progress in chemical disarmament?

Key takeaways:

1. The first 25 years of the treaty regime count as a major success, despite many challenges and disappointments. The regime is now at an inflection point, which will be punctuated by a review conference (CWC Fifth Review Conference) this coming May, where all the OPCW signatories will gather to set the future course and direction of the treaty. The next 25 years promise to be full of new and unexpected challenges, both technical and political. Whether

---

1 The views and opinions of authors expressed herein do not necessarily state or reflect those of the U.S. government or Lawrence Livermore National Security, LLC, and shall not be used for advertising or product endorsement purposes.
the momentum generated by past successes will be sufficient to sustain the regime in an eroding global order is an open question.

2. The successes of the first 25 years are numerous:
   - the Preparatory Commission and Provisional Technical Secretariat’s sprint to stand-up the OPCW
   - the early rush to turn treaty texts into practical measures and detailed operating procedures
   - the design and implementation of routine industry inspections
   - the monitoring of dismantlement and destruction of declared stockpiles

But challenges and disappointments emerged, including the refusal of some states of concern to sign the treaty (e.g., North Korea), the failure of many states to follow accession with implementing legislation and regulations, delays in destruction by both the United States and Russia, and above all the use of CW by both Syria and Russia. These challenges and disappointments proved also to be opportunities for States Parties (treaty signatories) to adapt and innovate—by exploiting the flexibility built into the regime.

Key challenges turned into key accomplishments, which include:
   - establishing a Declaration Assessment Team to clear up problems in Syrian declarations
   - setting up a Fact-Finding Mission to investigate reports of continued CW attacks
   - creating an Investigation and Identification Team to establish responsibility for use of CW in Syria

Such progress proves that the OPCW can respond to new challenges. These ad hoc non-routine activities are not explicitly spelled out in the treaty; rather, they are creative mechanisms supported by States Parties that have reinforced deterrence of violations by establishing an expectation that illicit behavior will be revealed sooner or later—and that those found guilty of such behavior will be held accountable in some way.

3. Accordingly, the anti-CW norm remains strong. No state speaks out against it. Even violators of the norm deny having done so because they know that an open violation would come with costs. No state has withdrawn. Most do what they can to enforce it. Most see the treaty as embodying a comprehensive set of new norms associated with fulfilling the treaty’s purpose and objective. For these and other reasons, the treaty regime is widely credited in the United States and elsewhere as a useful mechanism for promoting national and international security.

4. The inflection point follows from two developments. The first is the conclusion of the treaty implementation phase—a period dominated by the declaration and destruction of legacy chemical arsenals. This phase will end with the sunsetting of the United States destruction program in autumn 2023. The second is the shift in focus from the problems that gave rise to the convention in the 1980s (large Cold War arsenals and the emerging arsenals among proliferators) to the problems of the 21st century (coercion, civil wars, multi-party conflicts, targeted killings, terrorism, and rapid breakout, among other examples). The May 2023 fifth review conference of States Parties provides an opportunity to take stock of these
developments and of the substantial progress made over the last five years in meeting new challenges. It will also provide States Parties the opportunity to shift their focus onto emerging implementation challenges. Their success in doing so will depend in part on whether a framing vision of the future of the regime can (and will) be set out—a vision that clearly defines the OPCW’s task in the world that is emerging today.

5. Looking ahead, the next 25 years promise a growing number of new technical and political challenges arising from the very dynamic science and technology base from which CW threats may emerge. A Scientific Advisory Board exists to advise on developments in scientific and technological fields that are relevant to the Convention. Negotiators of the CWC anticipated technological change and built into the treaty regime the capacity to adjust the schedules of monitored items. But precisely when, whether, and how to adjust the schedules is a matter of continuing debate—as, for example on pharmaceutical-based agents that affect the central nervous system. These challenges will only grow sharper as synthetic biology, artificial intelligence, machine learning, and other advanced technologies for chemical discovery and production are exploited for new purposes.

6. The framers of the CWC understood that the CW threat is, among others, closely tied to developments in the chemical industry both in terms of capability and capacity. This is reflected throughout the treaty, from the general-purpose criterion in Article II to the intrusive industry verification provisions in the Verification Annex. New concepts for industry verification are needed, along with a stronger emphasis on non-routine activities such as alleged-use investigations, forensics, and attribution. We can be cautiously optimistic that the OPCW will be up to the emerging S&T challenges. The tools are in place. The question is whether there is the political will to use them.

7. Looking ahead, the CWC and OPCW will also face political challenges linked to broader developments in the geopolitical landscape. These include the revisionist agendas of leaders in Moscow and Beijing, rising disputes about the global validity of norms with their genesis in a Western-dominated world order, the rising dispute about who has the authority to set such rules, and the growing anxiety of many who look to the United States for leadership about its will and capacity to lead. A norm-based, anti-CW regime seems unlikely to prosper for long in a world in which the norms-based world order is, for the most part, under duress.

8. Russia’s abrogation of its responsibilities and violation of the norm are major challenges for the regime. Its protection of, and assistance to, another state (Syria) in violation of the treaty is an added insult to the regime. But at least so far, Russian transgressions have had only a limited practical impact on the functioning of the regime. Within the regime, it is more isolated than ever before, in part because of its relentless information warfare and culture of impunity. Many States Parties seem to accept that noncompliance by a major power is not the kind of problem for which the OPCW was designed. But the chronic ineffectiveness of the regime in dealing with the twin compliance challenges of Russia and Syria can be expected to have a corrosive effect over the longer term by encouraging others to think that they too can defy the norm. Moreover, Russia may also become more aggressive in undermining the regime and working against its purposes as part of President Putin’s campaign for “new rules or no rules.”
9. China's role in the regime is more ambiguous. On the one hand, it is active in treaty implementation activities. In this context, it plays a somewhat schizophrenic role, sometimes favoring its claims to great power status and other times claiming leadership of the non-aligned movement. On the other hand, its close strategic partnership with Russia adds to doubts about its reliability as a partner in dealing with compliance and enforcement challenges.

10. The Global South, though far from monolithic, is also key player in shaping the future of the chemical disarmament regime. The movement has generally played a constructive behind-the-scenes role in dealing with compliance challenges. But in its more visible roles, it appears committed to navigating a neutral path among major power disagreements. In so doing, the Global South has undermined the norms it professes to support. A few of its aspiring leaders speak openly about the OPCW as a Western hegemonic structure.

11. A key additional factor in the ongoing erosion of the global order is rising doubt about the will and capacity of the United States to continue playing a leadership role. That doubt appears not to have had an impact on the OPCW, where the record of United States leadership is strong. Whether that leadership will be sustained amid growing geopolitical tensions and political division at home is an open question.

12. The net effect of these developments on arms control, broadly defined (both multilateral and bilateral), has been corrosive. The bilateral U.S.-Russian arms control framework appears to be in final collapse. This raises new questions about whether Washington and Moscow (and Beijing) will be able to sustain the needed political focus on the multilateral regime and the cooperation necessary to its success. The nuclear non-proliferation regime is under growing political pressure from advocates of the Treaty for the Prohibition of Nuclear Weapons. This raises new questions about the trajectory of current developments, with a rising expectation that the future is not bright. So far at least, the chemical disarmament regime has been relatively insulated from these developments. Whether it will remain so is another open question.

13. The main vectors for further progress in implementing the regime are universality, adaptation, resolution of compliance concerns, and restoration of compliance. Universality requires both bringing in the few remaining non-signatories and persuading the far larger number of states that (1) have signed but not ratified or (2) have ratified but not passed implementing legislation to fulfill their obligations. Adaptation requires staying ahead of the dynamic S&T environment. Resolving compliance concerns requires new measures to pressure those actors who have not seen it as necessary or useful to address these concerns. Restoring compliance means persuading the leaders of Russia, Syria, Iran, and Burma to abandon existing practices. None of these tasks will be easy. Some will be impossible. Thus, many are not optimistic about further progress in chemical disarmament. Some conclude that the best that can be hoped for is that the regime does not lose ground in the years ahead.
14. Whatever form it might take, success in the years ahead will require leadership. As one participant argued, things do not happen on their own. Someone needs to be the catalyst. Someone needs to frame the new challenges clearly and sketch out the required vision of the future OPCW role. To turn the vision into reality, someone needs to begin the necessary intellectual and political processes, motivate collective action, and bring the necessary patience and persistence. Someone needs to be the honest broker of diverse interests and to counter to unhelpful narratives of Russia and others.

15. When the CWC entered into force 25 years ago, that someone was the United States. Its leadership was expected and sought by many—which fit well with the fact that the United States wanted and expected to play the leading role. Today, there is still a strong demand signal. But United States leadership is contested by Moscow and Beijing and resisted by some in the Global South. And both the intention and capacity of the United States to lead are in much more doubt than before. This implies both a continuing leadership role for the United States and new limits on that role. Without its vision, power, and persistence, the challenges ahead could well overtake the regime. But this also implies new requirements for leadership by others. Many forms of leadership are possible, by both States Parties and civil society. In fact, the OPCW’s first 25 years are marked by many examples of leadership by others. We should expect and welcome a larger role than before for other states with high motivation but less power than the United States in leading the chemical disarmament community to advance shared goals.

Panel 1: Taking Stock of the CWC and OPCW — The First 25 Years

- What are their key accomplishments?
- What key challenges did they face and how did they fare?
- What lessons should we learn?

A key initial challenge was establishing a general definition of a CW, which is defined in Article II of the CWC as all “toxic chemicals and their precursors, except were intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes.” Established as well, were Schedules 1-3. Chemicals on these schedules became the basis of declarations and routine inspections of the chemical industry. After this framework was established, there has been confusion among some States Parties about it. While there has been a gradual movement towards compliance, at present there are about 40 States Parties that do not have all necessary measures in place as per the obligations of the CWC. Moreover, some States Parties national legislation only applies to chemicals listed in the schedules, excluding their precursors or alternative compounds. In addition to States Parties’ implementation gaps, the OPCW Central Analytical Database (OCAD) is limited to scheduled chemicals with only a few exceptions. Many harmful chemicals, such as a myriad of riot control sensory irritant agents and toxic chemical incapacitants used in law enforcement settings, have not met CWC regulation requirements—though some of these issues have seen some resolution in recent years.

Additionally, from its genesis, the CWC was tasked with developing detailed procedures for facilities agreements, inspection procedures, and much more. In addition to designing this
blueprint, initial verification timelines required a fast turnaround. Paired with similarly ambitious destruction timelines, the CWC had to hit the ground running, yet sustain long-term efforts to meet these ends. The CWC and OPCW have seen many accomplishments. The OPCW’s political reaction to the United States and Russia failing to meet destruction timelines by necessitating additional transparency around new destruction timelines and procedures proved the political commitment of the organization to destruction goals. The decisive reaction to CW use in Syria—which included the United States and Russia pressing Syria to join the CWC and the OPCW-UN joint mission to oversee a destruction of Syrian CWs—exemplified the international political organizational capacity of the OPCW. Two actions exemplified the OPCW’s commitment to adapting to new threats at the international level: (1) its firm reaction to Russian use of CWs by adding novichok agents to CWC schedules and (2) its ruling that that the use of aerosolized central nervous system-acting chemicals was inconsistent with law enforcement purpose exemptions allowed under the CWC.

Lessons learned from these challenges and accomplishments must be accommodated in OPCW operations. The OPCW must be aware of how broad, international-level obligations are translated into national implementation measures to reduce implementation gaps. The OPCW must learn from its past that there are strengths and weaknesses to operating on a consensus basis. Tests and challenges to the feasibility of reaching consensus on new and highly scientifically technical questions will continue to insinuate the challenges of employing consensus-based operations. Further, the regime must appreciate and leverage the value of having an institutional base for fomenting collective international action in response to new security threats.

Panel 2: Looking Ahead to the Next 25 Years

- What challenges should we anticipate, both technical and political?
- How should the CWC and OPCW adapt?
- Are such adaptations politically plausible?

CW stockpiles of the Cold War era will be mostly eliminated by the end of 2023; however, this is not the end of CW threats emanating from states. The OPCW will have to deal with “residual capabilities” and the risks of exploitation of grey areas, such as advanced riot-control agents and centrally nervous system acting agents deployed as aerosols. The OPCW must prepare for the possible accessions of non-signatories. The future CW threat will see a doctrinal shift from largescale to small-scale attacks from terrorists and lone wolves. The question is: What is the role for the OPCW in this environment?

We may anticipate some necessary evolutions in how the OPCW manages compliance, as well as evolutions in how the OPCW interfaces with national institutions and other bodies to close implementation gaps and adapt to new scientific and technological advancements. Advancements in the life sciences as well as advances in computation have changed how life science research is conducted today. AI and machine learning are rapidly changing other various technical fields. Computational advances are expanding the chemical space, leading to new molecules and new synthetic pathways for molecular construction. There is a deeper
understanding of physiological mechanisms that can lead to new targets and binding sites for new agents. The OPCW must consider how to manage chemical security risks arising from computation advancements. A strategy could be to regulate at the publisher level, with standards such as those already forming in AI, with norms around publishing codes of conduct for potential dual-use research outputs.

Furthermore, the chemical industry is also changing. New production and manufacturing technologies close to or at the end-user site represent a shift from transfer of products to transfer of information. There will be much more automation. There will be more cyber-physical systems enabled by the industrial Internet of Things. Industry will be “purpose driven” and focused on sustainability, resiliency, and resource efficiency.

These technical advancements and changes in the chemical industry combined with other geopolitical factors will make CW nonproliferation a much more complicated task. There is a need for change. Investigations by the OPCW will become more common, not just of alleged CW uses, but as a general tool. Do we amend the schedules to address new and emerging chemicals? The answer might be yes but with caution. Agents that act on the central nervous system, such as opioids or various hallucinogens, for example, have utility as pharmaceuticals in addition to being potentially exploitable as weapons. Placing chemicals like these on the schedules can hinder their use for legitimate purposes. Do we follow the “if it isn’t broke, don’t fix it” principle or will new concepts be needed for industry verification? If we need to revamp the OCPW regime, how and with which objectives?

But there also is the need for continuity. A review conference is not an amendment conference, although it could conceivably lead to one. Amending a treaty is a risky business. A lot of time and effort is needed with uncertainty of the outcome, and there is a risk of “split regime” if amendments are not universally adopted or implemented by States Parties. While old risks are still there, we should consider keeping and improving what works even if it only addresses part of the evolving threat spectrum. The OPCW needs to protect and integrate fact-finding tools and methodologies that have been developed ad hoc, such as the Declaration Assessment Team, Fact-Finding Mission, and Investigation and Identification Team, rather than divert energy towards radical changes that may not become broadly acceptable.

**Panel 3: CWC Verification: from Implementation to Innovation?**

- How should the CWC keep pace with S&T changes?
- Should the OPCW seek to revive the dormant challenge inspection mechanism?
- Is it time for a CWC Additional Protocol that restructures the verification and compliance regime from a quantitative system to a more robust qualitative system?

This panel focused on how the OPCW should adapt considering a changing mission, S&T advancements, and shifting international dynamics. Remarks focused largely on how to improve the CWC and OPCW by making them more flexible and adaptable to meet current challenges, as well as discussion of specific emerging issues like laboratory production of biotoxins.
Current and emerging issues in terms of states and non-state actors of interest were discussed first, including specifics pertaining to North Korea, Russia, Iran, Syria, and China. North Korea is still not a party to the convention, and it is suspected of possessing significant stockpiles of CW agents. North Korea is also thought to have acquired domestic CW production capabilities more than four decades ago. Furthermore, the 2017 assassination of Kim Jong-Nam, the half-brother of Kim Jong-Un, at the Kuala Lumpur international airport using VX nerve agent has renewed interest in North Korea’s CW capabilities.

Russia is non-compliant with the CWC and known to have an undeclared CW program. While Russia originally worked with the OPCW and the United States through the Cooperative Threat Reduction Program to eliminate over 12,000 metric tons of CW by early 2009, the Skripal and Navalny incidents and Russia’s enabling, and protection of Syria’s CW use have called Russia’s compliance with the CWC into question.

While evidence of CW-related activities in Iran is limited, efforts to increase the size of the country’s chemical industry and expressed interest in military use of pharmaceutical-based agents have garnered concern for Iran’s compliance with the CWC. Additional concerns regarding Iran center on its suspected transfer of CW to Muammar Gaddafi and the country’s refusal to submit a complete declaration of its CW facilities.

Finally, the United States cannot certify China’s compliance with the CWC. Like Iran, China is thought to be interested in pharmaceutical-based agents with potential dual-use applications. As China continues to embrace a strategy of civil-military fusion, this is particularly concerning.

In terms of how best to move forward with addressing these evolving threats, the discussion focused on improving the CWC mechanism to build on both quantitative (inspection) and qualitative (Investigation and Identification Team and Fact-Finding Mission, etc.) systems to allow more flexibility. This could be achieved through several means, and it would serve to make the existing framework more practical while dissuading actors from pursuing CW. Three specific ways this might be done were discussed. These included the United States recommendation that the OPCW enhances its readiness to conduct non-routine missions. Another point was that the process could be made more efficient by changing how industry inspections are conducted so that the same cleared facilities are not constantly re-inspected. Finally, it was suggested that the OPCW should grow the number of laboratories in its network so that labs are not overburdened.

The panel also covered more specific S&T advancements that threaten the CWC and OPCW. Some examples of this include advancements in artificial intelligence and deep learning, and their role in designing new molecules and chemicals of concern. Additional concerns like the ability to synthesize chemicals of concern more easily were also discussed. Advancements in openly available technology and information, such as open geospatial data, also present challenges to CW proliferation. However, positive S&T advancements that can help mitigate these threats were also covered. For example, advancements in forensic chemistry have made it easier to identify sources of production, limiting deniability.

An important point made by panelists was that the OPCW must maintain its network of expertise in specific areas, including CW disarmament. As the OPCW’s mission changes, it is at
risk of losing this kind of expertise, which could prove detrimental. Furthermore, it is important
to maintain external experts and to focus on capacity building outside the organization to
improve the network available to support non-routine work moving forward.

Panel 4: The Troubled Global Norms

- Are the norms against chemical and biological weapons strong or weak? Are they
  becoming stronger or weaker?
- How are those norms affected by developments in the nuclear nonproliferation regime?
- What additional steps can and should be taken to strengthen the anti-CBW norms?

The norms against chemical and biological weapons remain strong, yet there are diverging views
on just how strong they are. No country is willing to publicly state that it is tolerable to violate
the norms, and no country has withdrawn from the treaties. Subsequently, the biological
weapons convention (BWC) and CWC obtained substantial universalization. National leaders also
have reaffirmed national implementation measures and codes of conduct. OPCW remains
effective on its missions, even more than arms control institutions. There are strong domestic
and international political costs of using biological and chemical weapons. Russian
disinformation campaign alleging United States development of bioweapons demonstrates
Russian faith in institutional response.

Nevertheless, the norms against chemical and biological weapons are under pressure. First, the
norms are challenged by those who continue to use or enable the use of chemical/biological
weapons. Repeated small-scale use of such weapons is worrisome as it raises the cost for the
responder while it lowers the cost for the user. It also degrades the normative structure as some
countries believe that there is no serious consequence for violating the norms. As the norms
become corrosive overtime, it begins to shift the cost/benefit analysis of using such weapons in
the absence of actions against it. Second, the norms are further challenged by those who choose
not to do anything when violation occurs. For instance, nearly half of the States Parties to the
CWC voted for abstention on actions against Syrian and Russian violations. It was even more
concerning that some States voted alongside Syria and Russia.

CW use in Syria and Russia violates the non-use, non-acquisition, non-retention, and destruction
norms. Continued gaps and omissions in Syrian declarations exist, and the Syrian lack of
cooporation with the OPCW violates the declaration norm and hinders implementation of the
inspection norm. Furthermore, Russian, and Chinese abuse of treaty mechanisms affects the
norm. Russia has been abusing the BWC consultative meetings to raise allegations against a
United States biological weapons program. State parties voting for abstention instead of voting
against Russian allegations shows a growing sign of fatigue on the continuing abuse of such
mechanism. State parties began choosing not to participate in review conferences, and the
incentive to take compliance issues seriously decreased over time.

There are mixed perspectives on how norms are affected by developments in the nuclear
nonproliferation regime. While there is a propagation of “norm entrepreneurs” in the context of
the non-proliferation treaty (NPT) regime, such as new actors in private sectors participating in setting or obstructing future norms, there are less norm entrepreneurs in CWC as interests of non-governmental (NGO) communities and industries are not as strongly pronounced. Likewise, the CWC regime is more inclusive and captures the interests of the Global South.

The norms are effective within technical and institutional aspects. However, the question is whether there is a political will to respond when such weapons are used. Non-compliance does not affect the norm. Rather, a non-response to violations affects the norm. In this regard, there are positive signs. The OPCW director-general announced new tools to support the implementation of declaration and investigation norms. States Parties repeatedly called on Syria to comply with obligations undertaken, and 25 States Parties activated the compellence norm when suspending Syria’s rights under CWC. The States Parties also made limited use of the consultation norm to request clarification from Russia’s use of chemical weapons, albeit its limited utility. Finally, State Parties established a new attribution norm at the Special Session of the Conference of the States Parties (CSP) in June 2018.

Panel 5: The Troubled Enforcement Mechanism

- What role can and should the UN Security Council have in treaty enforcement?
- What role has it played, and can it be expected to play?
- What are the prospects for P5 cooperation to enable multilateral arms control?

Treaty enforcement mechanism can be summarized as following: allegation → verification → compliance measures → enforcement → return to compliance. Specifically, the enforcement mechanism lies in the nexus of verification and compliance. In dealing with a non-compliance case, verification can be seen as part of enforcement by imposing increased costs on the alleged violator. The CWC offers multiple alternatives for resolving non-compliance cases with a range of options such as Group of Experts, new initiatives, and fact-finding missions on Syrian case. The CWC offers elaborate and flexible compliance mechanisms with multiple opportunities to resolve compliance concerns. For example, the CWC’s State Parties [at the Conferences of State Parties (CSP)] and OPCW’s Executive Council (EC) can trigger powerful sanctions via referral to the UN Security Council (UNSC) and the UN General Assembly. While the intertwined role of CSP and EC complicates any calculations made by potential violators to the CWC, it also provides opportunities for forum shopping.

The UNSC is the ultimate legal source of action. The UNSC could amplify early indication of non-compliance and ensure investigation within the OPCW. The UNSC could also work towards shared diagnosis of problems and ensure neutral supervision. The initial era of CWC formulation at the end of the Cold War provided little political contention. However, the current political environment is different from the end of the Cold War. The role of UNSC is affected by a major clash between powerful states. And the resentment of the Global South against Western disciplinary action is growing. Russia plays an unforeseen role as chief obstructor of CW and protector of CW criminals and allies. With Russia continuing to object to the involvement of international institutions and its relentless waging of information warfare, the role of the UNSC is even more limited.
Past cases of CW use are further influenced by political context. The relationship with Russia affects every aspect of such cases. Syria is a case in point. Initially, U.S.–Russian collaboration made the Syrian case seemingly resolvable. Nevertheless, worsening U.S.–Russian relations dampened any resolution. The Syrian CW case demonstrates the dependence on great power collaboration. The Syrian case is further complicated by a mixture of its context: civil war, multi parties’ engagement, and U.S.-Russian involvement. Early attention on the Syrian case faded as other global threats emerged. CW use, despite global abhorrence, pales in political importance to other threats such as the Russian invasion of Ukraine, nuclear threats, and the rise of China. It is also affected by limited bandwidth of CW issues in government, NGOs, and the UN/UNSC.

The prospects for PS cooperation to enable multilateral arms control is not promising. Russia has no reason to think that its current approach is unsuccessful. International isolation of Russia is not perceived the same way. Thus, if there is a small number of face-saving countries coalescing and supporting Russia, Russia does not need to worry about losing votes. Nevertheless, the pursuit of non-compliance cases must continue. Past efforts led to some victories such as adding Novichoks to the banned list and empowering the OPCW to determine responsibility for CW use.

**Panel 6: The Troubled Connections of Bilateral and Multilateral Arms Control**

- What impact has the erosion and prospective end of bilateral U.S.-Russian arms control had on the multilateral arms control regime?
- Is China’s unwillingness to join the arms control process consequential for the multilateral regime?
- What can be done to insulate the multilateral regime from difficulties in major power relations?

Bilateral agreements have their advantages and limitations. Bilateral agreements and processes can help build a foundation for broader multilateral regimes. For instance, the Intermediate-Range Nuclear Forces (INF) Treaty, which regulated matters important to a vast majority of countries, had multiple parties involved in the processes. Also, bilateral agreements can close the gaps that emerge during the development of multilateral ones. The processes involving multiple parties are more likely to result in agreement on “easier” issues. Multilateral agreements can be used to regulate such foundational matters and chart a path for continuing collaboration. More difficult issues that have not been addressed can then be resolved through additional bilateral agreements. The agreement between South Korea and North Korea that prohibited the enrichment on the peninsula can serve as an example of such interconnectedness of bilateral and multilateral arms control regimes.

Bilateral relations between the United States and Russia are at a historically low level. The Biden administration needs to navigate the challenges in bilateral arms processes with Russia and China, considering the complex relations between these two countries. It is becoming increasingly difficult for the United States to fulfill its moral and security obligation to lead in the arms control process. This situation has some similarities to the international environment during the Cold War. As direct communication with the Soviet Union was limited, the West had
to resort to indirect methods of determining the openness to collaboration. The choice of words in the statements made by the Soviet Union and its allies at the international forums was closely analyzed to presume a possibility of dialogue over a certain issue. After the collapse of the Soviet Union, bilateral relations improved, opening an opportunity to communicate directly and achieve some goals. Nowadays, the situation reverses to the previous model when direct communication is circumvented again, so the intentions of the other side can only be implied from the harshness of the statements' language.

Many issues in the U.S.-Russian bilateral arms control regime can be fixed easily. Hypersonic weapons is an example of this, while others might be significantly more problematic to negotiate, such as tactical nuclear weapons. The main question on both types of issues is whether Russia would be willing to sit at the table. There is an assumption that negotiations require a conducive environment that would eventually lead to a win-win outcome. However, the experience of the Cold War shows that progress can be achieved in a variety of ways. One party might take steps forward to appear more cooperative or make the other parties look less open to dialogue. Thus, the lack of progress in the bilateral regime might not directly translate into the lack of progress in the multilateral regime.

At the same time, it is crucial to uphold the existing norms. While the OPCW cannot do much about Russia’s Salisbury attack and the poisoning of Navalny, placing the matters before the convention and publicly discussing Russia’s non-compliance is important for the arms control regime’s future. It can undermine Russia’s credibility and show other countries that the procedures matter and are being used to the largest extent possible.

Nevertheless, these steps must be exercised with vigilance. Confrontation hurts any organization, hindering it from doing its job. Other countries might view a confrontation between the United States and Russia or China as a fight between great powers and choose to stay aside. It is a challenge to keep them engaged. For this purpose, the countries should treat their positions on Russian or Syrian non-compliance as a matter of CW use and not of geopolitical preferences. Since even these regimes put so much effort into denying CW use, it indicates that the norms remain strong.

The relationship between the United States and China is in better shape. While communication with China remains possible, China is more interested in remaining active in the multilateral domain. China is always seeking multilateral engagements and has a very limited tradition of participation in bilateral processes. China is carefully balancing between Russia and the West by taking positions on some questions and issuing ambiguous statements on others. For instance, China is cautious to not express support for Russia’s war on Ukraine and attempts to appear neutral.

Both Russia and China seek to unite the non-aligned delegations and position themselves as representatives of their interests. They are very concerned about maintaining this leadership status. It has become increasingly difficult for both. China has still to find a way to solve the contradiction of being simultaneously a great power with a developed economy and industry and a middle-income country that can genuinely represent the interests of non-aligned states. Russia’s situation is also complex, with some non-aligned countries oppose the idea of Russia
speaking on their behalf. The United States can also find a way to show the non-aligned countries that their enduring interests might differ from Russia’s enduring interests. Some countries, including Russia’s military allies, publicly expressed discontent with Russia’s invasion of Ukraine. Despite Russia’s reports on its alleged diplomatic successes, its public, especially the younger population, is becoming more knowledgeable and understanding that, in reality, Russia has become increasingly isolated. Some countries might not be willing to confront Russia directly. However, they still show their discontent by, for instance, being absent from the room during important voting.

The non-aligned countries, along with the European allies, are interested in a more forward-looking and positive agenda for the OPCW. The United States can focus on matters that can be accomplished. The areas in which United States cooperation can be further enhanced include helping to design and pass better federal legislation aimed at implementing the treaty, jointly developing strategies to address the threats from third countries, strengthening border control, training inspectors, building the capabilities of national laboratories, and improving the skills of first respondents to incidents. Collaboration experience in these areas would be useful once more difficult issues, such as verification, are resolved.

While seemingly closely aligned, Russia and China should be regarded as separate independent powers. Even given the difficulties in direct communication with Russia, it should not be assumed that China can serve as an interlocutor in relations with Russia. In contrast, the ability to reach an agreement between China and the United States would put enormous pressure on Russia, which would not want to be seen as obstructing positive developments. This might be another way to make progress.

In sum, the multilateral regime cannot be insulated from the difficulties in major power relations. All agreements, multilateral and bilateral, are affected by geopolitical storms. The problem is much broader and goes beyond arms control, affecting other issues such as trade and human rights. The international norms that have been in place since the end of the Cold War seem to be eroding. The most significant development in this regard is Russia’s violation of the norm of not changing a country’s borders by force. Although most UN member states have condemned this behavior, over half of the world’s population lives in countries whose representatives did not support the condemnation. But these countries should not be treated as one unanimous group. Their diverse interests and positions must receive more attention.

Maintaining its position as a leader, the United States can navigate through the absence of bilateral relations with Russia. Each incident in both bilateral and multilateral arms control regimes must be analyzed separately. Although some agreements may fall apart, it will not necessarily cause a chain reaction. Given its previous achievements, the OPCW has a better future than many other arms control matters. But it also needs to deal with the future geopolitical threats that the CWC was not designed to address. For example, the development of technology, advanced manufacturing, and weaker footprints will force us to move from existing verification standards to more forensic-type operations, which would require strategic rethinking.
Panel 7: Leadership and the Fate of the Multilateral Treaty Regime

- What lessons follow for the United States leadership role?
- What leadership should be asked of others?
- What does leadership entail?

The CWC in 2022 marked the 25th anniversary of its entry into force. Many positive developments have been made since its adoption. There have been important votes, grey areas are being closed, and numerous “firsts” have been achieved, such as adding new chemicals to Schedule 1 (including Novichok). When the CWC was designed, the arms control community had a clear vision of what it should entail. It was based on the idea of leading by example. In the turbulent geopolitical environment of today, it is not entirely clear what that means. The States Parties were expected to “stay for all three acts of the play.” These three acts represent the three main pillars of arms control—negotiation, ratification, and implementation. Too often, the countries focus on just the first two. Once the negotiations are complete and the document is ratified, many erroneously assume that the job is done. However, implementation is no less important. Active involvement may help address the key challenges that arise during implementation in a timely manner. Participation in these three acts also requires the countries to rise above petty interests and have a shared sense of responsibility for the values they commit to protecting.

In the changing geopolitical landscape of today, leadership must be reimagined. New challenges arise, such as unconventional warfare and hybrid conflicts, the development of new technologies, and a more diverse set of arms control regime participants. The states are no longer the only important actors in the process; the influence of the non-state actors is rising. It is impossible to deal with these markedly different issues using the same approaches. The United States must become bolder and look beyond specific measures that need to be used immediately. The entire arms control enterprise needs to be redesigned.

Current geopolitical problems have a corrosive effect on arms control norms. There are no signs of possible improvements in the near future. Russia’s actions can be summarized by a slogan that appeared during Putin’s 2014 speech at the Valdai Club: “new rules or no rules.” It attempts to undermine the legitimacy of the current global order by offering a rationale for a different set of behaviors. China seeks to occupy a dominant position in the world. North Korea and Iran are making considerable progress in their nuclear programs and seeking regional leadership. The Global South is navigating between the great powers and, by doing so, often undermines existing norms. United States allies are increasingly worried about the international order.

The arms control community is rightly focused on verification mechanisms. Technological developments and political considerations make detecting violations challenging. However, it is no less important to look beyond verification. Compliance and especially enforcement became the major arms control issues. The political and military consequences are unclear even if a violation is detected. Enforcement comes with a cost for those who are trying to impose it. Additionally, verification and enforcement are centered on the materials. However, many CW materials are dual use, so implementing any prohibitions outright would likely be met with protests. A possible solution might be to shift the attention from the materials to shaping the
choices on how these materials are used. It might require creativity and experimentation to design such future scenarios.

Another interesting way to dissuade the proliferation of chemical weapons is by reducing the effects of their use. The United States and others have developed—and continue to develop—capabilities to respond to chemical spills and accidents that can also be applied in case of intentional use to minimize the effect. These capabilities can be exported to other countries, lowering the motivation for malign actors to use these weapons.

The United States needs to take steps to be successful in its leadership role. First, it must get its own house in order. The United States domestic political agenda impacts its global position. Secondly, good leadership requires good followership. Arms control is not a priority for many countries that are more focused on dealing with ecological disasters, diseases, and other seemingly more pressing issues. However, leadership stems from the understanding that progress does not happen on its own. Willingness to do hard work and the ability to mobilize necessary resources are required. Leadership also means supporting others in their efforts to lead.

Progress on the arms control process can be measured through four indicators. The first indicator is universalization. Many states have not passed their implementation legislation. Even though it is a complicated matter, this is a tangible metric for progress. The second indicator is adaptation. There has been some progress in this area, but the CWC is learning to deal with the Syria and Russia challenge. Technological adaptation is also taking place; however, it is keeping pace with the progress is becoming increasingly harder. The third and fourth indicators are about compliance. Here, concerns need to be resolved and compliance restored. Diplomatic solutions have not been successful in this regard. Ongoing problems remain with Russia, Syria, and Iran, and restoring compliance is unlikely without regime changes in these countries. Considering these indicators, the progress in multilateral arms control will likely be limited. Yet, even in this case, it can be meaningful and impactful.