

UNSCR 1540: IMPROVING IMPLEMENTATION TO ENSURE A SAFER TOMORROW

View of a uncrewed aerial vehicle or drone in flight; Credit: Jordan Cormack

ABSTRACT

Since the adoption of UN Security Council resolution 1540 (UNSCR 1540) in 2004, implementation by States has improved. However, there are still shortcomings in the implementation of the resolution that should be addressed. The article offers some recommendations to strengthen the implementation of UNSCR 1540. Noting changes in the threat environment, especially due to rapid advancements in technologies such as artificial intelligence, the article argues that a robust and universal implementation of UNSCR 1540 is important and needed to ensure a safer future for humanity.

UN Security Council resolution (UNSCR) 1540, adopted unanimously in 2004, provides a comprehensive framework for combating the proliferation of nuclear, chemical, and biological weapons and their delivery systems by non-State

actors. The adoption of UNSCR 1540 was triggered by the aftermath of the 9/11 attacks and the unveiling of the A.Q. Khan proliferation network, which led to calls to ensure that non-State actors do not obtain weapons of mass destruction

(WMD) nor the materials and technologies to manufacture them.

Over the last twenty years of implementation, the number of States submitting their initial report on the implementation



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of UNSCR 1540 has increased. However, there still remain eight States that have yet to submit a report at all.¹ In the 2022 Comprehensive Review on the status of implementation of UNSCR 1540 (the third Comprehensive Review conducted to date and mandated under UNSCR 1810 (2008) and UNSCR 1977 (2011))², this shortcoming was highlighted: “the Committee [noted] that some Member States have indicated that they

have experienced difficulties in the full implementation of the resolution due to, *inter alia*, the lack of adequate financial resources, technical expertise, legal frameworks and enforcement capabilities and recognizes the particular needs of support for developing countries and, in particular, least developed countries.”³

While UNSCR 1540 was adopted under Chapter VII of the UN Charter, binding all UN

Member States to its implementation, the lack of consideration of States’ capacity to meet their obligations under the resolution exacerbates gaps in implementation. On the one hand, UNSCR 1540’s key strength lies in its agility and breadth, as its provisions remain broadly applicable even when the threat environment changes. The resolution encompasses the entirety of a non-State actor’s attempts to “develop, acquire, manufacture,

1 Security Council, “2022 comprehensive review of the status of implementation of Security Council resolution 1540 (2004),” (November 2022), p. 8.

2 Security Council Resolution 1810 (2008), OP8 and Security Council Resolution 1977 (2011), OP3.

3 Security Council, “2022 comprehensive review of the status of implementation of Security Council resolution 1540 (2004),” (November 2022), p. 22.



Side-event during the 2022 open consultations of the 1540 Committee; Credit: UN Photo/Manuel Elías

possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery.”⁴ Further, the nonprescriptive language of the provisions, especially related to the “effective measures to establish domestic controls,”⁵ enables it to adapt to changes in the security landscape. On the other hand, the general nature of its provisions can also be seen as a weakness, as it provides little guidance to States on its implementation. The gaps in implementation are visible in the varying

percentages of overall implemented measures recorded to date, the quality of the reports submitted and the enforcement of the measures put in place.

These shortcomings in the implementation of UNSCR 1540 over the last two decades demonstrate that States need additional support to meet their obligations under the resolution, both presently and in the future. One key step to further support States is ensuring their access to reliable information on how

to implement the resolution’s provisions. Such international guidance is already available for the nuclear and radiological aspects of UNSCR 1540 through the International Atomic Energy Agency’s (IAEA) Nuclear Security Series, which “are consistent with, and complement, international nuclear security instruments, such as (...) United Nations Security Council Resolutions 1373 and 1540.”⁶

However, equivalent tools are lacking for the chemical

4 Security Council Resolution 1540 (2004), OP 1, 2 and 3.

5 Security Council Resolution 1540 (2004), OP3.

6 International Atomic Energy Agency, “Nuclear security fundamentals, objective and essential elements of a State’s nuclear security regime,” IAEA Nuclear Security Series, No. 20 (2013), Preface.

and biological security aspects. There are dozens of expert and good practice documents on different areas of the resolution, yet no single document comprehensively covers the chemical or biological security components in full. For example, while the Organisation for the Prohibition of Chemical Weapons (OPCW) offers capacity building opportunities to States experiencing challenges in implementation and there is some guidance available on its website for implementing legislation and providing assistance and protection, consensus guidance from States Parties to the Chemical Weapons Convention is not available. The OPCW could be well suited to pursue the development of consensus guidance on chemical security. However, an international body would need to be identified to carry out the same endeavour for the biological side, and in both cases, it could take significant time for such guidance to be developed.

Although more effective if developed as a consensus among many States, such as

the IAEA's Nuclear Security Guidance, an expert document could also provide useful information on good practices and require less time to assemble. For example, the 1540 Committee could compile typical measures States have introduced to fulfil their obligations under the resolution. Such a guide establishing good practices for implementation could be invaluable to all States, and particularly those experiencing challenges in implementation. Such an effort would, however, require significant resources from the 1540 Committee. For this reason, it could be productive for the 1540 Committee to seek partnerships with Member States and regional or subregional organizations for its development.

A second, parallel effort could see the 1540 Committee strengthening and streamlining its matchmaking role. The 1540 Committee's matchmaking role was established under UNSCR 1810 (2008) in which all States and assistance providers were encouraged to inform the 1540 Committee of their requests and areas where assistance could be provided.⁷

However, the 2022 Comprehensive Review indicates that more can be done to improve tailored assistance to States in a more efficient and timely manner, and it provides several recommendations regarding how to aid the 1540 Committee in this regard.⁸ One path forward to better facilitate tailored assistance could be for the 1540 Committee to provide a mechanism through which States seeking advice on completing their assistance requests could consult either directly with the Group of Experts or with international, subregional and regional organizations. Such engagement while States are preparing their requests would allow for the specific needs of States to be clearly defined and thus better met through the matchmaking process. Additionally, to further refine the matchmaking process, the 1540 Committee should prompt providers of assistance to also be more specific regarding their offers of assistance. For example, as recommended in the 2022 Comprehensive Review, this could be done via a template developed for this purpose. However, to carry

⁷ Security Council Resolution 1810 (2008), OP5.

⁸ Security Council, "2022 comprehensive review of the status of implementation of Security Council resolution 1540 (2004)," (November 2022), pp. 27.



An uncrewed aerial vehicle (drone) in flight; Credit: Mitch Nielsen

out these recommendations, the 1540 Committee may require additional capacity and resources or, alternatively, could seek partnerships with other organizations.

Further outreach may also be needed to States that are still in the process of implementing the provisions of UNSCR 1540. Better utilization of the national points of contact to increase awareness and strengthen institutional capacity on UNSCR 1540 could help States better align the goals of the resolution with their national priorities. Also, national points of contact could help identify more senior individuals with strong connections within government to provide more visibility and offer a stronger voice to the importance and significance of a robust implementation of the resolution.

Now, more than ever, is the time to strengthen the mechanisms that support States in implementing UNSCR 1540.

The threat environment is changing rapidly, and advancements in technologies are emerging at an unprecedented

rate. Many of these technologies have potential to provide non-State actors with capabilities that, in some ways, begin to approach those available to State actors. In particular, technologies like artificial intelligence (AI), can reduce the resources needed to commit malicious acts, while potentially increasing the speed and scale of attacks. Non-State actors are already using AI and emerging technologies in their offensives, via weaponized uncrewed aerial vehicles, denial-of-service attacks, enhancing existing malware to bypass security in place, and using open-source intelligence to plan and map out attacks.⁹ Advancements in AI, anticipated every six months, may allow for attacks to become “more accurate, more targeted, more automated and more convincing”¹⁰ and at a scale that could be hard to control.

The potential risk posed by advanced technologies in the hands of malicious non-State actors increases the urgency of ensuring that all States can effectively implement UNSCR 1540’s provisions. This means that an adaptable and strong

implementation of UNSCR 1540 worldwide is essential to protect against malicious non-State actors seeking WMD capabilities. Every State differs in its capacity to meet its obligations under UNSCR 1540, and assistance is needed to reach a robust and universal implementation of this vital resolution. However, it must be done, for the security of us all.

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9 Sarah Kreps, “Democratizing harm: Artificial intelligence in the hands of nonstate actors,” Foreign Policy at Brookings, November 2021.

10 Sarah Kreps, “Democratizing harm: Artificial intelligence in the hands of nonstate actors,” Foreign Policy at Brookings, November 2021, p. 9.