

WMD Biological and chemical weapons - governance

Risk expert

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Biological and chemical weapons are banned by two international treaties: the Biological Weapons Convention (BWC) of 1975, with 183 State Parties, and the Chemical Weapons Convention (CWC) of 1997, with 189 State Parties. In both cases, dual-use creates a particular difficulty: the same chemicals and biological agents can be applied for beneficial purposes or serve as the core components of deadly weapons.

The CWC, negotiated with participation of the chemical industry, defines a chemical weapon by its intended purpose, rather than lethality or quantity. It allows for stringent verification of compliance: acceding to the CWC means mandatory destruction of all declared chemical weapons as well as their production sites – to be subsequently verified by appointed inspectors. The BWC is less prescriptive, which results in ambiguities and loopholes. Research is permitted under the Convention, but it is difficult to tell the difference between legitimate and potentially harmful biological research. States are required to “destroy or to divert to peaceful purposes” their biological weapons, but no agreed definition of a biological weapon exists. In addition, there is no secretariat to monitor and enforce implementation, except for a small administrative support unit in Geneva. No mechanism exists to verify destruction or diversion. No international database exists to monitor and track commitments to improve biosafety and bio-security related assistance. Efforts have failed since 1991 to include legally-binding verification procedures in the BWC. Some lesser steps have been taken, including confidence-building measures on which State Parties are to report each April, and management standards on biosafety and biosecurity. However, implementation is voluntary, and the vast majority of States Parties do not submit declarations on their activities and facilities.

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Under the BWC, complaints can be lodged with the UN Security Council – which can investigate them – but no complaint has ever been made, and enforcement mechanisms do not exist.

The CWC includes a provision for “challenge inspections” in case of suspected chemical weapons use – but again, it has never been invoked, not even in the case of Syria, though doubts about a chemical weapons program are regularly debated at the Security Council. For over seven years, regular visits by the OPCW “Declaration Assessment Team” have not been able to clarify discrepancies and determine if Syria’s declaration is accurate and complete, and monthly reporting to the UN Security Council continues. In April 2021, the Conference of States Parties to the CWC took the unprecedented step of suspending certain rights and privileges of the Syrian Arab Republic.

The repeated use of chemical weapons and the high concern about biosecurity have led to increased focus on the UN Secretary-General’s Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons, concluded in 1988. In case of alleged use of chemical or biological weapons, investigations can be requested as happened in Syria in 2013, with mandatory reporting to the Security Council.

Only four UN countries are not State Parties to the CWC (Egypt, Israel, North Korea and South Sudan). The highest concern among those is North Korea, said to possess large quantities of chemical weapons that could be sold or traded to unscrupulous non-State actors. The existence of large stocks remains a risk, and the largest possessors of chemical weapons, Russia and the United States, had requested extensions of the deadlines imposed by the Organisation for the Prohibition of Chemical Weapons. While Russia announced in late 2017 that it had destroyed its large chemical arsenal, the United States has not been able to complete the destruction, due to the cost and environmental challenges of chemical disposal.