IV. Multilateral nuclear arms control, disarmament and non-proliferation treaties and initiatives

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This section reviews the developments and negotiations that took place in 2019 in four multilateral nuclear arms control, disarmament and non-proliferation treaties and initiatives: the 1996 Comprehensive Test Ban Treaty (CTBT); preparations for the 2020 Review Conference for the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT); the 2019 conference on the establishment of a zone free of weapons of mass destruction (WMD) in the Middle East; and developments in the 2017 Treaty on the Prohibition of Nuclear Weapons (TPNW). Developments in the Joint Comprehensive Plan of Action (JCPOA) are covered in section III.

**Developments related to the Comprehensive Nuclear-Test-Ban Treaty**

The Comprehensive Nuclear-Test-Ban Treaty would prohibit its states parties from conducting ‘any nuclear weapon test explosion or any other nuclear explosion’ anywhere in the world.\(^1\) As of 31 December 2019 the CTBT had been ratified by 168 states and signed by an additional 16 states.\(^2\) However, the treaty cannot enter into force until all 44 of the states listed in its Annex 2 have ratified it, and 8 of these states—China, Egypt, India, Iran, Israel, the Democratic People’s Republic of Korea (DPRK, or North Korea), Pakistan and the United States—had yet to do so.\(^3\)

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) was established in 1996 to prepare for the entry into force of the treaty. In particular, this involves building the International Monitoring System (IMS), consisting of 321 seismic, hydroacoustic, infrasound and radionuclide monitoring stations and 16 laboratories to detect evidence of nuclear explosions, and the International Data Centre (IDC) to process and analyse the data registered by the monitoring stations and transmit it to member states.

**Conference on entry into force**

Until the CTBT enters into force, the states that have ratified it may periodically call a conference on facilitating the entry into force (a so-called Article XIV conference).\(^4\) The 11th such conference was held at the United

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1. CTBT, Article 1(1). For a summary of the CTBT see annex A, section I, in this volume.
2. In Feb. 2019 Zimbabwe became the 168th state to ratify the treaty.
3. The 44 states listed in annex 2 all had nuclear power or research reactors on their territories when the treaty was opened for signature in Sep. 1996.
4. CTBT (note 1), Article XIV(2).
Nations headquarters in New York on 25 September 2019, attended by representatives from 81 states signatories, with Pakistan participating as an observer.\(^5\) During the conference, many states emphasized the importance of bringing the CTBT into force on an expedited basis.\(^6\) The proceedings largely followed the pattern of previous Article XIV conferences. What distinguished the 2019 conference was the absence of the USA, which declined to participate for the first time.

The final declaration of the conference reaffirms ‘that a universal and effectively verifiable Treaty constitutes a fundamental instrument in the field of nuclear disarmament and non-proliferation’.\(^7\) It outlines a number of steps and measures to promote the early entry into force and universalization of the treaty. These focus on education, training and public outreach initiatives. They also involve support for the continuing work of the CTBTO in building the IMS and developing enhanced on-site inspection capabilities to verify whether a nuclear explosion has taken place.\(^8\)

**US allegations of Russian nuclear tests**

The US decision not to attend the Article XIV conference came against a background of allegations that Russia was conducting nuclear tests and domestic partisan calls for US President Donald J. Trump to ‘unsign’ the CTBT.\(^9\) The allegations had gained public attention following a statement made by the director of the US Defense Intelligence Agency (DIA), Robert P. Ashley, on 29 May. Ashley stated that the USA believed that Russia ‘probably is not adhering to the nuclear testing moratorium in a manner consistent with the zero-yield standard’ codified in the CTBT.\(^10\) Two weeks later, the DIA released a statement clarifying that the US Government had ‘assessed that Russia has conducted nuclear weapons tests that have created nuclear yield’.\(^11\) This would violate its obligations as a state signatory to the CTBT.

However, US officials provided no evidence that Russia had conducted nuclear explosive tests that violated the treaty’s zero-yield limit. This led some sceptical experts in Washington to suggest that the Trump administration was seeking to free the USA of any constraints on its own nuclear weapon development effort, and, indirectly, to try to undermine the CTBT itself.\(^12\)

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\(^6\) Bugos, S., ‘Frustrations surface at CTBT conference’, *Arms Control Today*, vol. 49, no. 9 (Nov. 2019).

\(^7\) Conference on Facilitating the Entry into Force of the CTBT (note 5), Final declaration, para. 1.

\(^8\) Conference on Facilitating the Entry into Force of the CTBT (note 5), Final declaration, paras 8, 10.


The Russian Government promptly dismissed the claim as groundless. The deputy foreign minister, Sergey Ryabkov, had earlier stated that Russia, unlike the USA, had ratified the CTBT and that it was acting in ‘full and absolute accordance’ with the treaty and Russia’s unilateral moratorium on nuclear tests.

**Status of monitoring stations in Russia**

The CTBTO’s IMS became the focus of international scrutiny after an accident on 8 August 2019 at the Nenoksa missile test site on the White Sea coast of Russia set off an explosion and release of radioactivity. Amid conflicting media accounts, a US intelligence assessment reportedly concluded that the accident occurred during Russia’s attempted recovery of the on-board nuclear reactor from a Burevestnik missile that had crashed in the sea after a failed test.

The 80 planned or operational radionuclide stations in the IMS monitor for airborne radioactive particles that are by-products of nuclear explosions. Seven of these operational stations are in Russia. The CTBTO reported that two days after the accident the two radionuclide stations in Russia closest to the explosion had suddenly halted transmissions of data. Russian officials told the CTBTO that the stations were experiencing ‘communication and network issues’. By 13 August a further two radionuclide stations in Russia had ceased transmissions to the IDC, and a fifth subsequently went offline. This led to speculation that Russia had deliberately shut them down to avoid transmissions of data about the radioactive isotopes detected following the accident. Such data could help other CTBT signatories to understand the nature of the weapon under development. According to the CTBTO, the two stations furthest from Nenoksa resumed operations on 20 August and were backfilling data to the IDC.

In response to the reports from the CTBTO, Ryabkov, the Russian deputy foreign minister, stated that the accident involving the nuclear reactor at Nenoksa ‘should have no connection’ to CTBTO activities since the

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14 Kimball (note 12).
17 Murphy (note 16); and Lassina Zerbo (@SinaZerbo), CTBTO executive secretary, Twitter, 18 Aug. 2019.
organization’s mandate does not extend to weapon development.\textsuperscript{20} He also complained about the CTBTO’s sharing of information with the public, adding that the transmission of data from national stations which are part of the IMS ‘is entirely voluntary for any country’.\textsuperscript{21} Indeed, according to the CTBT, ‘Each State Party shall have the right to take measures to protect sensitive installations and to prevent disclosure of confidential information and data not related to this Treaty’.\textsuperscript{22}

**Preparations for the 2020 Non-Proliferation Treaty Review Conference**

Every five years, the states parties to the Non-Proliferation Treaty meet in a conference to review the operation of the treaty.\textsuperscript{23} These review conferences are preceded by meetings of a preparatory committee, which considers procedural and substantive issues and makes recommendations for the upcoming review conference. The preparatory committee for the 2020 Review Conference held its third and final session in New York from 29 April to 10 May. The session was chaired by Ambassador Mohamad Hasrin Aidid of Malaysia.

As in earlier sessions, the discussions were overshadowed by the lack of progress on nuclear disarmament by the nuclear weapon states.\textsuperscript{24} Several non-nuclear weapon states expressed concern over the uneven implementation of the NPT’s three pillars—nuclear non-proliferation, nuclear disarmament and the peaceful use of nuclear energy. For example, the Non-Aligned Movement (NAM) argued that ‘pursuing non-proliferation alone while ignoring nuclear disarmament obligations is both counterproductive and unsustainable’.\textsuperscript{25} States parties also expressed concern over backward steps, such as the erosion of the Russian–US arms control architecture and the modernization of nuclear arsenals.\textsuperscript{26}

The five nuclear weapon states defined by the NPT—China, France, Russia, the United Kingdom and the USA (collectively known as the P5)—viewed further progress in disarmament as being impeded by current circumstances,
although they held different views as to what constituted the main obstacles.\textsuperscript{27} In an apparent effort to hedge against criticism about imposing preconditions to the fulfilment of its NPT obligations, the USA renamed its ‘creating the conditions for nuclear disarmament’ approach as ‘creating an environment for nuclear disarmament’ (CEND).\textsuperscript{28} It also presented a plan to operationalize CEND by inviting selected countries to ‘identify a list of issues or questions relating to the international security environment affecting disarmament prospects’.\textsuperscript{29}

Some non-nuclear weapon states were sympathetic to the view that progress toward nuclear disarmament was conditional on addressing challenges in the international security environment.\textsuperscript{30} Others rejected that logic. For example, the New Agenda Coalition—a group of six states that tries to build a consensus on steps towards nuclear disarmament—argued that NPT commitments ‘are not to be reinterpreted, rolled back, or conditioned in any form’.\textsuperscript{31} Sweden presented its own ‘stepping stone’ initiative, which sought to remove blockages to disarmament diplomacy while taking into account different perspectives and to build ‘political support for pragmatic, short-term, achievable demonstrations of commitment to the global disarmament regime’.\textsuperscript{32} Several countries expressed support for disarmament education and for promoting the gender perspective within the NPT process.\textsuperscript{33}

As in 2018, fiery ‘right of reply’ exchanges took place between the USA and three other countries—Iran, Russia and Syria. Yet Russia and the USA presented a united front as part of the P5. This reflected the success of

\textsuperscript{27} Erästö, T., ‘50 years of the NPT—cause for celebration or commemoration?’, Commentary, SIPRI, 23 May 2019.


\textsuperscript{31} Preparatory Committee for the 2020 NPT Review Conference, Third Session, Statement by Brazil on behalf of the New Agenda Coalition, 29 Apr. 2019. The 6 members of the New Agenda Coalition are Brazil, Egypt, Ireland, Mexico, New Zealand and South Africa.


China’s efforts to build a consensus at a P5 conference that it hosted in Beijing in February 2019. The P5 announced some modest steps—such as a plan to organize a side event on nuclear policies and doctrines at the 2020 Review Conference—in an apparent attempt to address the widespread criticism over the lack of disarmament.

Several countries expressed their support for the 2015 Joint Comprehensive Plan of Action (JCPOA)—a landmark nuclear agreement between Iran and China, France, Germany, the UK, Russia and the USA. Reflecting concern over the future of the agreement following US withdrawal from it in 2018, they called for Iran’s continued compliance. However, the committee session coincided with Iran’s announcement that it would reduce its JCPOA commitments in response to the USA’s withdrawal from the agreement.

Many delegations also expressed their support for the decision of the UN General Assembly to convene a UN conference on the establishment of a zone free of nuclear weapons and other WMD in the Middle East (see below). While welcoming that decision, the NAM explained that this new process would not replace previous commitments made in the context of the NPT, including the 1995 Resolution on the Middle East. Given their divisions on several issues—including the TPNW and its compatibility with the NPT (see below)—the preparatory committee was unable to agree on joint recommendations for the 2020 Review Conference, and instead produced a more informal working paper.

The preparatory committee initially chose Ambassador Rafael Grossi of Argentina as the chair of the 2020 Review Conference. However, Grossi was subsequently elected as the new director general of the International Atomic Energy Agency (IAEA) in October. The post of review conference chair thus remained empty at the end of 2019, but Gustavo Zlauvinen, the deputy foreign minister of Argentina, was nominated in January 2020.

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37 For further background and recent developments in the JCPOA see section III in this chapter.
Persistent divisions among the NPT membership are likely to make it difficult for the parties to agree on a final consensus document at the 2020 Review Conference. Against the background of the previous such failure at the 2015 Review Conference, this raises concerns about the viability of the NPT as the cornerstone of the global nuclear disarmament and non-proliferation regime.

The conference on the establishment of a weapons of mass destruction-free zone in the Middle East

The Conference on the Establishment of a Middle East Zone Free of Nuclear Weapons and Other Weapons of Mass Destruction held its first session on 18–22 November 2019 at the UN in New York. The conference was convened by UN Secretary-General António Guterres and presided over by Ambassador Sima Bahous of Jordan.

The decision to hold the conference had been made by the UN General Assembly on 22 December 2018, based on a draft proposed in the First Committee by a group of Arab states. However, calls in the UN General Assembly to free the Middle East of nuclear weapons date back to 1974. In 1990 Egypt had proposed broadening the agenda to cover all WMD, and the 1995 NPT Review Conference adopted the Resolution on the Middle East, whereby states parties agreed to promote the establishment of a WMD-free zone in the region. However, efforts to promote that goal through the NPT review process were ineffectual over the 1990s and 2000s. The first attempt towards the practical implementation of the 1995 resolution was made in 2010, when the NPT review conference agreed to hold a conference on the establishment of a Middle East WMD-free zone by 2012. That this decision was not subsequently implemented can be seen as the single most important factor behind the failure of the 2015 NPT Review Conference.

The 1995 Resolution on the Middle East eventually provided the terms of reference for the 2019 conference. All Middle Eastern states were invited to participate in the conference and the five NPT nuclear weapon states were

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43 1995 NPT Review and Extension Conference (note 38).
invited to observe it. All but two invitees—Israel and the USA—participated. The themes debated included the principles and objectives, general obligations regarding nuclear weapons and other WMD, peaceful uses and international cooperation, and institutional arrangements. It was agreed that representatives from existing nuclear weapon-free zones would be invited to the second session of the conference—planned for 16–20 November 2020—to share good practices and lessons on treaty implementation.

The conference adopted a political declaration in which participating states declared their commitment to pursue, in accordance with relevant international resolutions, and in an open and inclusive manner with all invited States, the elaboration of a legally binding treaty to establish a Middle East zone free of nuclear weapons and other weapons of mass destruction, on the basis of arrangements freely arrived at by consensus by the States of the region.

The conference will be held every year until its objective of a legally binding treaty creating the planned zone is achieved. According to observers, the general tone of the discussions was positive and constructive. However, the UK reportedly regretted the convening of the conference, which prompted critical responses from some Middle Eastern participants.

The conference did not achieve immediate results, which was expected due to the absence of the region’s only nuclear-armed state, Israel. However, it can be seen to have laid the basis for sustained multilateral efforts towards WMD disarmament in the Middle East. As the president of the conference noted, the conference was the beginning of a process. As such, it also might relieve some of the pressure on the NPT review process that the lack of implementation of the 1995 Resolution on the Middle East has created.

**Treaty on the Prohibition of Nuclear Weapons**

The Treaty on the Prohibition of Nuclear Weapons is the first multilateral treaty establishing a comprehensive ban on nuclear weapons, including

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47 For a list of the 22 participants, 4 observers and other organizations see United Nations, General Assembly, Conference on the Establishment of a Middle East Zone Free of Nuclear Weapons and Other Weapons of Mass Destruction, First session, List of participants, A/CONF.236/INF/3, 22 Nov. 2019.
49 United Nations A/CONF.236/6 (note 48), Political declaration.
50 United Nations, General Assembly, Decision 73/546 (note 42), para. d.
their development, deployment, possession, use and threat of use. As of 31 December 2019, 34 states had ratified or acceded to the TPNW and a further 47 states had signed but not yet ratified it. It will enter into force 90 days after 50 states have either ratified or acceded to it. Several states that had not yet ratified the treaty reported that their domestic ratification processes were ongoing.

In 2019 the TPNW continued to be subject to contradictory interpretations. During the 2019 meeting of the Preparatory Committee for the 2020 NPT Review Conference, supporters argued that the TPNW complements and strengthens the NPT. Critics stated the opposite. China—whose position towards the TPNW has generally been more positive than the other nuclear weapon states—also joined the criticism in the joint P5 statement, according to which ‘the TPNW contradicts, and risks undermining the NPT’. Reflecting the majority view, the idea of the TPNW’s ‘complementarity with the Non-Proliferation Treaty’ was nevertheless incorporated into the informal working paper produced by the chair of the preparatory committee.

The meeting of the First Committee of the UN General Assembly in October adopted a draft resolution supportive of the TPNW, which was sponsored by 49 states. This resolution, which was adopted by the General Assembly on 12 December, calls on ‘all States that have not yet done so to sign, ratify, accept, approve or accede to the Treaty at the earliest possible date’. Given the broad support for the treaty, the prospect of its entry into force seems increasingly likely in the coming years.

53 For a list of these states see annex A, section I, in this volume.
55 E.g. Preparatory Committee for the 2020 NPT Review Conference, Third Session, Joint statement on the Treaty on the Prohibition of Nuclear Weapons (TPNW), Statement by Austria, Brazil, Costa Rica, Ireland, Indonesia, Mexico, New Zealand, Nigeria, South Africa and Thailand, 2 May 2019.
57 Preparatory Committee for the 2020 NPT Review Conference, Statement by China on behalf of the P5 states (note 35).
58 Preparatory Committee for the 2020 NPT Review Conference, Statement by China on behalf of the P5 states (note 35).