Nuclear Non-Proliferation in a Deadlock

The abolition of nuclear weapons is unlikely in the near future. The number of nuclear powers must be kept as low as possible in order to prevent nuclear wars. A diverse range of ongoing diplomatic initiatives, including some with Swiss participation, serve this purpose. At the core of these efforts is the Nuclear Non-Proliferation Treaty (NPT). March 2020 marked the 50th anniversary of its entry into force.

By Oliver Thränert

People release paper lanterns on the Motoyasu river facing the gutted Atomic Bomb Dome on the anniversary of the bombing of Hiroshima. *Kyodo/Reuters*

Since its entry into force on 5 March 1970, the NPT has established an international norm against the proliferation of nuclear weapons and served as the basis for a comprehensive non-proliferation regime (see text box). Nearly all states have signed on to this treaty. In addition to the non-proliferation norm, the NPT includes a commitment by the parties to the treaty to make good-faith efforts for nuclear disarmament and notes that member states may use nuclear power for peaceful purposes and support each other in doing so.

However, the NPT has been mired in a crisis of credibility for years. Many non-nuclear weapons states are dissatisfied with the nuclear disarmament efforts of the nuclear powers recognized by the treaty (the US, Russia, France, the UK, and China). They are also unhappy at the existence of nuclear powers outside of the NPT framework (India, Pakistan, Israel, and North Korea). Furthermore, there are complaints that jointly agreed measures to alleviate disarmament deficits are not being implemented. Against this background, certain non-nuclear weapon states in July 2017 signed a treaty that stipulates a complete ban on nuclear arms, aiming to delegitimize nuclear weapons altogether. This is evidence of polarization within the community of NPT states. Moreover, tense relations between Russia and China on the one hand and the Western nuclear weapons powers – the US, France, and the UK – weigh heavily on the NPT regime. On the 50th anniversary of the NPT, therefore, there is little prospect for a successful NPT review conference (which take place every five years).

Historical Background

In December 1953, then US president Dwight D. Eisenhower announced his initiative "Atoms for Peace". In it, the US proclaimed the willingness to share the civilian use of nuclear power worldwide, provided the recipient states would agree to inspections designed to ensure strictly peaceful usage. In 1957, "Atoms for Peace" resulted in the foundation of the International Atomic Energy Agency (IAEA).

Following the scare of the Cuban Missile Crisis of 1962, which was only resolved with a bit of good fortune, the US intensi-

fied its efforts to create a treaty on nuclear non-proliferation. In doing so, Washington accommodated the interests of the vast majority of states that wished to minimize the number of nuclear-armed states and thus the likelihood of nuclear conflicts. The Soviet Union, too, was determined to prevent the emergence of additional nuclear-armed disruptive elements. Both Cold War superpowers shared interest in cementing their exceptional status within the international order. Furthermore, Moscow perceived an opportunity to counteract NATO's plans at the time for developing a multilateral nuclear force, and deny the Federal Republic of Germany access to nuclear weapons.

Based on identical texts drafted by the US and the Soviet Union, the UN General Assembly accepted the NPT in June 1968. 62 states signed it in July that year. The treaty entered into force on 5 March 1970. Following a decision of the states party to the treaty in May 1995, it remains in effect indefinitely. The NPT defines as nuclear-weapons states all countries that developed and detonated an atomic weapon or any other form of nuclear explosive before 1967, which applies to the US, Russia, the UK, France, and China. They may not pass on nuclear weapons or other nuclear explosives or control over such weapons to anybody, directly or indirectly. The US declared towards the Soviet Union – which did not contradict – that it considered neither NATO's joint nuclear operational planning nor the stationing of nuclear weapons on the territory of its allies as violations of this agreement. Conversely, the non-nuclear weapons states agreed not to accept atomic weapons or control over such weapons from anybody, nor to produce or acquire nuclear weapons or other nuclear explosives.

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Non-nuclear weapons states must implement safeguards agreements with the IAEA, which monitors the entire chain of fissile material. At the same time, all parties to the treaty are to collaborate to use nuclear energy peacefully. Finally, NPT members are obliged to pursue negotiations in good faith on effective measures to end the nuclear arms race and on nuclear disarmament under effective international control.

Achievements

The main achievement of the NPT has been the establishment of a norm against the proliferation of nuclear weapons. Accordingly, some states that hoped to keep open a nuclear option for the future were forced to come clean about their intentions. Many of them subsequently chose to remain non-nuclear weapons states. Moreover, the nuclear non-proliferation norm played a role in shaping decisions to waive nuclear options. South Africa, for example, destroyed its nuclear weapons after the end of the Apartheid regime. Kazakhstan, Ukraine, and Belarus handed over their nuclear weapons to Russia following the dissolution of the Soviet Union. Furthermore, the existence of the NPT favors the formation of international coalitions against the creation of new nuclear powers. However, in some cases, such efforts failed. India, Pakistan, and Israel did not join the NPT and developed nuclear weapons, as did North Korea, the only country to abrogate the NPT and then produce nuclear arms. In the case of Iran, where a coalition was successfully forged, it remains to be seen whether Tehran can be convinced to agree to permanently renounce the nuclear option. Without the NPT, there is a danger that even more states may start nuclear arms programs. The great powers might even support such programs, depending on their respective national interests at the time.

Moreover, by way of the IAEA safeguards agreements, the implementation of the NPT has fostered transparency and cooperation in peaceful nuclear programs. Without the NPT, there would be no legal basis for such openness, which would lead to substantial insecurity over possible clandestine military abuse. Those who call for further steps in nuclear disarmament also cite the NPT and refer to the promises it enshrined. Finally, the NPT is the reference point for "negative nuclear security guarantees": the protection of non-nuclear weapons states from nuclear attacks.

Norm Enforcement

Enforcing the nuclear non-proliferation norm and excluding military misuse require the effective oversight of civilian nuclear energy projects. This has not succeeded in all cases, though. Industrialized countries like Germany and Japan originally wanted to avoid competitive disadvantages vis-à-vis nuclear arms states in the peaceful use of nuclear energy. Therefore, in the NPT negotiations, they insisted that the safeguards agreements did not entail an overly intrusive reporting and inspections regime. Moreover, they were adamant that safeguards agreements did not exacerbate the difference in status between nuclear weapons states and non-nuclear weapons states.

The full-scope safeguards agreements demand that a member state must report on the entire chain of fissile material. The IAEA conducts inspections in order to exclude the possibility that significant amounts of nuclear material can be secretly set aside for the production of atomic weapons. Special inspections may complement such routine inspections if the IAEA has indications of incorrect behavior on the part of a member state. So far, special inspections – which allow IAEA inspectors to investigate any suspected location of undeclared fissile material – have only been requested twice: in 1992 to shed light on undeclared efforts by the Ceausescu regime in Romania, and in 1993 to clarify significant discrepancies between declarations and inspection results in North Korea. While Bucharest was cooperative, Pyongyang refused access to inspectors and withdrew from the NPT.

From the beginning, one of the shortcomings of the IAEA inspections regime was that it lacked the monitoring capabilities to shed light on undeclared nuclear material. This weakness became patently obvious after the 1991 Gulf War. Iraq, an NPT member, had conducted experiments with undeclared fissile material, aiming to develop nuclear weapons. The IAEA learned from this experience and in June 1997 approved a voluntary Model Additional Protocol to complement the safeguards agreement. It significantly expands the declaration requirements. States must declare all efforts in the nuclear field, including research activities. Additionally, inspectors are given improved access. Their aim is to confirm that the inspected states do not have any undeclared material stockpiled and that no undeclared fuel cycle activities are taking place. To this end, the IAEA can make use of improved techniques such as swipe samples, environmental samples, or satellite images.

Whereas many Western countries insist on the application of the Additional Protocol as the standard for NPT verification, a number of NPT members refuse to do so, including some with significant nuclear activities. They will only agree to accept the infringement on their state sovereignty the

implementation of the Additional Protocol implies if the nuclear weapons states make progress with nuclear disarmament.

Moreover, the IAEA itself cannot enforce the NPT's non-proliferation norm. Nor does it determine violations of the NPT, as it only monitors compliance with the safeguards agreement. The IAEA can report such misdemeanor to the UN Security Council, which, under the UN Charter, can take coercive measures against the state in question. The UN Security Council has imposed sanctions against North Korea and Iran, for example. While Pyongyang subsequently left the NPT and continued its nuclear weapons program regardless, a Joint Comprehensive Plan of Action was agreed in the case of Iran. The goal was to bring Iran back into NPT compliance.

Syria is a special case. The Israeli Air Force destroyed a reactor capable of producing weapons-grade plutonium, apparently supplied by North Korea and not declared to the IAEA, in September 2007 shortly before commissioning. The particulars of the Syrian nuclear program have so far not been ascertained.

Loss of credibility

Non-proliferation policy is status-quo policy. In the case of the NPT, one exacerbating factor is that nuclear weapons are a status symbol. Acceptance of the distinction drawn in 1968 between nuclear and non-nuclear weapons states is dwindling. Moreover, some states are beginning to question the reliability of US security guarantees

Non-proliferation policy is status-quo policy.

and consider the need for nuclear weapons of their own. North Korea and its arsenal is an important factor in the deliberations of East Asian states. Many non-nuclear armed states find it intolerable that India, Pakistan, Israel, and North Korea are allowed to remain nuclear powers outside of the framework of the NPT's nuclear order. This is particularly true for Arab countries. In 1995, they only agreed to extend the NPT indefinitely while at the same time, a Middle East resolution was agreed upon demanding steps to establish the region as a zone free of weapons of mass destruction. Many Arab countries are frustrated because this plan has failed to achieve any major advances. By the same token, non-nuclear weapons states find it inappropriate that the US, France, and Russia cooperate with India on the civilian use of nuclear power and that some governments are in favor of allowing Delhi to join the Nuclear Suppliers Group despite its status as a nuclear power outside the NPT. Such a move would amount to tacitly accepting India as a nuclear weapons state.

A considerable number of NPT members believe that complete nuclear disarmament is the only way of remedying these flaws. While the nuclear weapons states massively reduced their arsenals after the end of the Cold War, they also modernize and improve their nuclear arsenals. Furthermore, China, India, and Pakistan are expanding their nuclear capacities in numerical terms as well. However, the most significant factor has been the collapse of the arms control architecture established since the 1960s. In this respect, the abolishment of the INF Treaty banning land-based US and Russian intermediate-range missile systems in August 2019 is relevant. Repeated demands for entering into force of the Comprehensive Nuclear-Test-Ban Treaty, or a cut-off treaty for fissile material let alone a timeline for complete nuclear disarmament, have gone unheeded.

It was against this background that the UN General Assembly adopted the Treaty on the Prohibition of Nuclear Weapons in July 2017, which aims to stigmatize nuclear weapons. The nuclear weapons states abstained from the negotiations, as well as all NATO states (apart from the Netherlands; a parliamentary resolution required the government to send a delegation) and all US allies in Asia who rely on US nuclear security guarantees. They note that the treaty offers no satisfactory answer to the key question of how complete nuclear disarmament can be enforced and maintained with absolute certainty.

The 2020 Review Conference

The NPT member states will meet for their next review conference on April 27. Due to the ongoing corona crisis, however, the conference will be adjourned immediately after its opening. Its purpose is discussing the implementation of the NPT and to develop suggestions on how to improve the treaty's regime. Given that it is the 50th anniversary of the NPT's entry into force, expectations were high. In any case, whenever the review conference reconvenes, there remains the danger that the states again disband without achieving anything, as has been the case on several occasions in the past. The adoption of the Treaty on the Prohibition of Nuclear Weapons serves to illustrate an increasing polarization among the NPT members, which renders a failed conference a real possibility.

Some believe that the solution could be a short "anniversary declaration" affirming the NPT's principles and possibly stating that a nuclear war cannot be won and must never be fought. Indeed, past NPT review conferences have given rise to declarations, such as the indefinite extension of the NPT in 1995 or an action plan on disarmament in 2010, even when delegations did not all agree on a final document on the implementation of the NPT.

Ultimately, however, strengthening the NPT depends on making sure that Iran

Elements of the nuclear non-proliferation regime

- **Nuclear Non-Proliferation Treaty** (NPT)
- The **Treaty on the Prohibition of Nuclear Weapons** (TPNW), adopted by the UN General Assembly in July 2017, bans the development, production, testing, acquisition, storage, transport, stationing, and use of nuclear weapons. It will enter into force upon ratification by at least 50 states. Switzerland voted in favor of the TPNW but has not signed it yet.
- The **Comprehensive Nuclear Test Ban Treaty** bans nuclear weapons tests and other nuclear detonations. It was adopted by the UN General Assembly in September 1996 and ratified by Switzerland, but has not yet entered into force due to the refusal of numerous states, including nuclear weapons states, to ratify it.
- A number of treaties have declared **nuclear-free zones** with bans on testing and stationing nuclear weapons in Latin America and the Caribbean (since 1968), the South Pacific (since 1986), Southeast Asia (since 1997), Africa (since 2009), Central Asia (since 2009), Antarctica (since 1961), and outer space (since 1967).
- The **Nuclear Suppliers Group** (NSG) in 1978 published the first common set of guidelines for nuclear transfers, implemented through national export regulations. Members exchange information on exports of nuclear goods as well as dual-use goods that can be used to build nuclear explosives. Switzerland has been a member since 1978.

does not develop nuclear weapons. Furthermore, a revival of nuclear arms control is urgently needed. Unlike during and after the Cold War, it would have to include not just the US and Russia, but also other nuclear powers. Moreover, non-nuclear technologies such as missile defense or cyber-capabilities would also have to be taken into account.

The Role of Switzerland

Switzerland signed the NPT in 1968 and ratified it in 1977. Since 2005, Switzerland has been implementing the Additional Protocol to the IAEA safeguards agreements. It urges all NPT members to implement an Additional Protocol as well. Switzerland regards the NPT as a crucial element of the rules-based international order that entails important security advantages for members. While Switzerland views the three pillars of the NPT – non-proliferation, civilian use of nuclear energy, and nuclear disarmament – as equally important, it stresses the aspect of disarmament in particular. The catastrophic results that a nuclear detonation would have are the main reason why Switzerland argues in favor of ridding the world of nuclear weapons as soon as possible. At the same time, Switzerland advocates a pragmatic approach that also brings the nuclear weapons states on board.

One important step towards disarmament would be to reduce nuclear risks. Therefore, Switzerland, alongside other NPT member states, encourages the nuclear weapons states to reduce the alert status of their nuclear arsenals. Furthermore, Switzerland proposes that the nuclear weapons states should limit the role of these weapons to the single purpose of deterring the use of nuclear weapons by other states. Together with 15 other countries, Switzerland is part of the "Stockholm Initiative", which aims to advance nuclear disarmament while also building bridges between nuclear weapons states and non-nuclear weapons states.

There remains the danger that states may disband at the NPT review conference without achieving anything.

At the 2010 NPT review conference, Switzerland succeeded in inserting a passage into the agreed action plan in which states express their deep concern over the catastrophic consequences that nuclear weapons use would entail. This was the core of what would become the "Humanitarian Initiative". This group of states, initially coordinated by Switzerland, organized international intergovernmental meetings. The initiative paved the way for a mandate on negotiations about a complete ban on nuclear arms. Switzerland would have preferred nuclear weapons states and those relying on their nuclear protection taking part. At the UN General Assembly, Switzerland voted in favor of the Treaty on the Prohibition of Nuclear Weapons, but refrained from signing it. Subsequently, both the National Council and the Council of States voted to do so soon. However, in 2019, the Federal Council decided not to sign for the time being and to reexamine the matter by the end of 2020.

Switzerland, too, will find it difficult to create positive impulses at the upcoming review conference. As in 2010, it will only be able to live up to the bridge-building role that it so often favors if a majority of the more than 100 delegations is prepared to compromise. However, given the polarization within the community of NPT states, that seems an unlikely prospect.

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