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Türkiye in the New World Order: The Nuclear Debate

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Alumni Note

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Introduction

The recent Russian invasion of Ukraine has shown that nuclear weapons still play an important role in international politics. It has also resulted in discussions about whether some states may think of nuclear weapons as a way to guarantee their survival and security if hostile nuclear powers threaten them.[1] However, the risk of nuclear proliferation is not a new issue and has been on the international agenda since the 1960s. These concerns led to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), which entered into force on 5 March 1970 and became the cornerstone of the international non-proliferation regime for nuclear weapons.

Nevertheless, the NPT and this regime have been under heavy pressure from time to time, with six non-compliance on safeguards agreements, namely with Iraq, Romania, North Korea, Libya, Iran and Syria.[2] Moreover, five of these violations occurred in the Middle East and North Africa and the Black Sea region, leading to heated debates about possible nuclear weapons proliferation in these regions.

Türkiye has been included in proliferation debates due to its interest in a nuclear power programme since the 1980s. These debates were broadened with the emergence of the Iranian nuclear programme, because it would disrupt the fragile balance of power in the region, as a result of which Türkiye was assumed to be considering its own capabilities. Recently, Türkiye has appeared in these debates more often, following Turkish president Recep Tayyip Erdoğan's criticism of the global nuclear order in September 2019. President Erdoğan had stated that "Several countries have missiles with nuclear warheads, not one or two. But (they tell us) we cannot have them. This, I cannot accept. ... There is no developed nation in the world that does not have them".[3] Despite being perceived as a potential sign of intended proliferation, this statement was taken out of context, because it was merely for the president's domestic audience rather than implying intent.

However, Türkiye has been a party to all international weapons of mass destruction (WMD) non-proliferation efforts and is a member of the North Atlantic Treaty Organization (NATO). A wide array of scholars continue to discuss Türkiye's NATO membership and the fact that the nuclear capabilities of the Alliance are effectively the cornerstone of the country's security policy. Accordingly, the Turkish interest in nuclear technology stems from a desire to access a cheap and reliable energy source that is fully compatible with sustainable development goals.[4]

This Alumni Note will revisit how Türkiye positions itself with regard to the nuclear issue and will join the literature that underlines the country's international commitments and the sound continuity of its status as a non-nuclear-weapon state by explaining why Türkiye will not develop nuclear weapons. In this context, the Note first looks at the global nuclear order and how it is maintained, despite some challenges. The following sections detail Türkiye's international non-proliferation commitments, foreign and security policies, and interest in nuclear technology for peaceful purposes. The Note concludes by briefly evaluating both the arguments and counter-arguments regarding Türkiye's position vis-à-vis nuclear technology.

The global nuclear order

The global nuclear order is based on the NPT, which has the objectives of preventing the proliferation of nuclear weapons, promoting cooperation for the peaceful use of nuclear technology, and achieving nuclear disarmament.[5] The NPT recognises only five state parties as nuclear weapon states.[6] The other state parties to the Treaty are recognised as non-nuclear-weapon states (NNWS) that "undertake not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons".[7]

Despite the existence of a misleading inclination to associate the regime only with the NPT, there are other components that include, but are not limited to, the International Atomic Energy Agency (IAEA), Conference on Disarmament, Comprehensive Nuclear-Test-Ban Treaty, Fissile Material Cut-off Treaty, Zangger Committee, Nuclear Suppliers Group, and the movement to establish nuclear-weapon-free zones. The components of the regime are based on and support nuclear non-proliferation, the peaceful use of nuclear energy, and nuclear disarmament, which are generally known as the "three pillars" of the regime.[8]

For the nuclear non-proliferation pillar, the regime has a nuclear safeguards system implemented by the IAEA to verify compliance with the safeguard agreements and prevent the diversion of fissile material for military use while promoting cooperation in the peaceful use of nuclear technology and equal access to it for all state parties.[9] However, there have been some cases in which the IAEA has been unable to verify the compliance of some states, namely Iraq, Romania, North Korea, Libya, Iran and Syria.[10] Even though only the North Korean case resulted in nuclear proliferation after North Korea withdrew from the NPT in 2003, the remaining cases have resulted in significant proliferation concerns, especially regarding Iran.

The possibility of Iran acquiring nuclear weapons resulted in discussions that other states might follow suit and seek nuclear-weapon capabilities, resulting in the inclusion of Türkiye in these discussions, while there is no material evidence to support this.

Türkiye's international commitments

As a state party to the NPT since 1979, Türkiye signed the safeguards agreement in 1981 and the Additional Protocol with the IAEA in 2001. Furthermore, the IAEA has found no evidence that might indicate any past or present undeclared Turkish nuclear weapon-related activities.[11] Besides its commitment to the NPT, Türkiye has supported international efforts to prevent nuclear weapon and other WMD proliferation, mainly motivated by its geographic proximity to turbulent regions and its perception of its security needs. In this regard, while Türkiye has always been committed to

the NPT norms, namely, non-proliferation, disarmament, and the peaceful use of nuclear energy, the country is also a member of all WMD non-proliferation treaties and export control agreements.[12] Türkiye's efforts were initially part of NATO's broader efforts to maintain strategic stability and military parity during the Cold War. In this vein, Türkiye is not only a state party to the NPT, but also the Comprehensive Test Ban Treaty, the Chemical Weapons Convention, and the Biological Weapons Convention, which are acknowledged as the four most comprehensive treaties against the spread of WMD and their delivery systems.[13]

Similarly, Türkiye believes in and supports the idea that international agreements and treaties aimed at arms control, disarmament, and non-proliferation, such as the Intermediate Nuclear Forces Treaty and the Joint Comprehensive Plan of Action, should not be undermined, but fully implemented and universalised. Türkiye also supports greater investment in dialogue, transparency, and confidence-building measures, and in strengthening existing treaties and regimes covering arms control, disarmament, and nuclear non-proliferation.[14]

Additionally, Türkiye joined the Hague Code of Conduct against Ballistic Missile Proliferation in 2002 as a transparency and confidence-building measure that reinforces efforts to prevent the proliferation of WMD delivery systems. Furthermore, Türkiye has been a member of the Conference on Disarmament since 1996, and is also party to export control regimes such as the Wassenaar Arrangement, Missile Technology Control Regime, Nuclear Suppliers Group and Australia Group. Moreover, Türkiye supports and participates in complementary initiatives, namely the Proliferation Security Initiative, Global Initiative to Combat Nuclear Terrorism, Non-Proliferation and Disarmament Initiative, International Partnership for Nuclear Disarmament Verification, and Creating an Environment for Nuclear Disarmament.[15]

The country participates in international meetings and conferences, and submits compliance reports accordingly. In this regard, Türkiye attaches great importance to its active participation in global non-proliferation, arms control, and disarmament efforts, as well as its commitment to international instruments and the full implementation of these efforts as the essential elements of its national policies.[16] As a part of such efforts, Türkiye has also been actively supporting the implementation of a regional WMD-free zone as part of a broader strategy to decrease instability and tensions in the Middle East.[17] In this context, Türkiye criticises Israel's de facto nuclear-weapon state status from time to time, referring to it as a threat to regional peace and security. However, it is important to note that this generally happens when bilateral relations between the two countries are tense. All these international commitments and the country's compliance with any responsibilities that arise from the non-proliferation agenda position Türkiye as a reliable and committed international partner, and efforts to promote peace, stability, and confidence-building measures have become the centrepiece of Turkish security and foreign policies.[18]

Türkiye's foreign and security policies

Türkiye's foreign and security policies are shaped by both independent variables, such as its history, geographical position, fears, and traumas, and dependent variables, such as international and domestic developments. While there are some exceptions, it could be argued that Türkiye has developed alliances and pursued a defensive realpolitik approach through multilateralism and cooperation with the international community. This security approach has been developed and implemented in line with the country's threat perceptions, while the primary determinant of Turkish foreign policy has always been the principle of maintaining equilibrium in the wider region. These foreign and security policies mean that domestic, regional, and international stability reinforces Türkiye's security and is basic to the country's approach to nuclear weapons in particular.[19]

In this framework, as a member of the nuclear-armed Alliance since 1952, Türkiye has embraced NATO's security guarantees and extended deterrence as the cornerstone of its security policy.[20] Article 5 of the NATO charter establishes the basis of the "positive security guarantees" given to Türkiye or any other NATO member, which state that an attack on any member is an attack on all of them. This means that Türkiye's entire territory is protected by NATO's nuclear umbrella, deterring any possible nuclear attack from other states. Furthermore, Türkiye has been hosting B61 nuclear weapons on its soil at the İncirlik Air Base under nuclear sharing arrangements as part of the NATO extended deterrence capability, which has been criticised as a violation of the country's NPT commitments. As a term with roots in the Cold War period, "extended deterrence" means that the United States is ready to retaliate with nuclear weapons against adversaries if a NATO member state comes under nuclear attack. Since the beginning of the Cold War this arrangement has served as a way of maintaining credibility, reassuring NATO allies, and preventing the proliferation of nuclear weapons among NATO members. As a part of this policy, the United States forward-deployed tactical nuclear weapons in several NATO states, including Türkiye.[21]

Since the end of the Cold War, even though Türkiye's geopolitical concerns have been replaced with diverse threats predominantly emanating from the Middle East rather than from a political-military superpower to the country's north, this new threat perception in the 1990s and 2000s did not result in a profound diversion from the previous Turkish military strategic understanding concerning the stationing of tactical nuclear weapons on its soil.[22] In addition, the country has continued to attach non-military importance to the US nuclear weapons in Türkiye as a symbol of the status of the Turkish-US defence partnership, which in turn has political implications.

Among the Turkish public, there is still broad support for Türkiye's continued participation in the NATO collective defence system. As a NATO member state, Türkiye's entire territory has been protected under NATO's nuclear umbrella, deterring any possible nuclear attacks from other states. This suggests that Türkiye's nuclear future will remain firmly linked to extended deterrence to address its security concerns, on the one hand, and comply with its commitments to the international non-proliferation regime, on the other.[23] In this regard, Türkiye's national security priorities still require a

robust system of deterrence for defensive purposes, which has been historically maintained by the presence of tactical nuclear weapons on Turkish soil and is also maintained to counterbalance the offensive capabilities of countries that Türkiye considers to be its regional threats. This means that NATO's nuclear sharing arrangements will continue to be the cornerstone of Türkiye's national security and a symbol of its commitments to NATO, despite recent negative developments such as the country's acquisition of a mobile surface-to-air S-400 missile system from Russia, which resulted in the imposition of US sanctions on Türkiye and the country being expelled from the F-35 multirole combat aircraft programme, because the S-400 is believed to pose a risk to the NATO alliance and the F-35.[24]

Nuclear technology for peaceful purposes

Türkiye's quest for the peaceful use of nuclear energy dates back to 1956. Its decision to adopt nuclear energy was triggered by a desire to access a cheap, clean and reliable source of energy generation. Furthermore, a more recent motivation is that nuclear energy is also key to achieving net zero carbon emission goals for Türkiye, as for many other states.[25] In addition, the motivation for this nearly six-decades-long journey has also been associated with the development of the country's economy, its energy security needs, and, more importantly, as a symbol of its modernisation.[26]

Türkiye has made six broad attempts to use nuclear technology to provide its growing energy needs. Although these attempts have been motivated by similar reasons, the reasons for their failure so far have been different. With this ambition, Türkiye's initial interest and plans resulted in the establishment of two research and training centres in 1961 and the conducting of a feasibility study for the purchase of its first nuclear power plant in 1967. However, the country's annual gross domestic product (GDP) of less than US$ 20 billion did not provide it with the financial capabilities needed to support a nuclear power programme. As a result, initial interest and plans were halted following a military coup in 1971, with its accompanying political and economic instability.[27]

Türkiye's second attempt to acquire nuclear power plants resulted in feasibility studies in 1972 for two such plants to be constructed at Akkuyu and Sinop, for which licences were issued in 1976. While Türkiye negotiated with two Swedish firms for the construction of its first nuclear power plants, the process was interrupted by another military coup in 1980, with the same accompanying political and economic instability.[28]

Türkiye's third attempt happened in the 1980s when the Turkish economy had become strong enough to support a nuclear power programme, with a GDP of over US$ 60 billion. However, Türkiye changed its strategy from a conventional purchase of a plant to a build-operate-transfer (BOT) approach, in terms of which a vendor would be responsible for construction costs, recoup its expenses by operating the plant for a specific time, and then transfer it to the Turkish government in exchange for a percentage of future profits. Although bids were invited from seven major suppliers and letters of intent were issued to three firms, negotiations halted when Türkiye

insisted on 100% foreign financing for the project.[29] At the same time, the Chernobyl disaster in 1986 increased domestic opposition to the nuclear energy programme. Domestic opposition and political factors, combined with the conflicts with vendors, ultimately resulted in the failure of the third attempt. However, the failure was also partly due to suspicions about the country's role in Pakistan's nuclear weapons programme, when Türkiye was suspected of being likely to transfer nuclear materials to Pakistan.[30]

In 1994 Türkiye made its fourth attempt to establish a nuclear power generation programme with an international tender issued for a turnkey project. Despite receiving bids from three companies, the project was associated with corruption lawsuits resulting from an International Monetary Fund-backed economic programme, and, as a result, a purchase guarantee could not be issued. Additionally, during this attempt the "Anti-Nuclear Platform", a public movement against nuclear energy, was organised and is still active today.[31]

At the end of 2002 Türkiye initiated the fifth attempt, which for the first time was partly motivated by concerns over its growing dependence on Russian gas imports. As a part of a new motivation for a nuclear programme, a 2007 law introduced official procedures for the nuclear tender process using the BOT approach. While six vendors had planned to participate, Türkiye received only one bid, from the Russian state-owned Rosatom corporation. This sole bid was deemed to be too expensive, and the final attempt using the BOT approach also failed.[32]

As a result of these five past failures, Türkiye's sixth attempt was based on a shift from the BOT approach to the build-own-operate (BOO) approach, taking the form of intergovernmental agreements that allowed vendors to sidestep specific competition rules and actually own the plant after its construction. In 2010 Türkiye signed an intergovernmental nuclear cooperation agreement with Russia using this approach.[33]

According to the agreement, Rosatom is authorised to build, own, operate and finally decommission the Akkuyu Nuclear Power Plant, which is expected to become operational in 2023 and fully operational in 2026. In return, Türkiye provides the Akkuyu site free of charge and guarantees to purchase electricity for 15 years for US$ 0.1235 per kWh. Rosatom will construct and operate the nuclear power plant, provide the fuel, and be in charge of nuclear waste disposal, while helping Türkiye to build the necessary human capital.[34] Since the price is advantageous when compared to future average price projections that take into account the nuclear power plant's construction, operation, management, maintenance, and waste transportation and treatment requirements, this agreement for the first BOO nuclear power plant in the world is projected to be economically beneficial to Türkiye.[35]

The literature focusing on Türkiye's NNWS status indicates that the country has shaped its nuclear policies in line with its international responsibilities as a reliable international actor committed to the nuclear weapons non-proliferation regime and its components. This perspective also highlights that the country already has nuclear deterrence capabilities, with NATO offering security assurances in case of an attack. In addition, Türkiye has

the inalienable right to research, develop and use nuclear energy for peaceful purposes under Article IV of the NPT.

Could Türkiye develop nuclear weapons?

As the debate now stands, there are two broad perspectives on Türkiye's position on nuclear weapons. On the one hand, a growing body of literature has been arguing that Türkiye allegedly has nuclear weapons ambitions. Building their arguments on the Iranian nuclear programme, the country's changing security and foreign policies, and President Erdoğan's off-the-cuff statement discussed earlier, they make serious allegations regarding the risk that Türkiye could develop nuclear weapons. The other strand in the literature, on the other hand, continues to argue that Türkiye has been supporting all international WMD non-proliferation efforts; has maintained its security policy in line with that of NATO; and envisages adopting a nuclear programme only as a means to access cheap, clean, and reliable energy.

If we put arguments about "intentions" to one side, no material evidence indicates the possibility of Türkiye establishing a nuclear weapons capability. The country simply does not have the technical capacity to support nuclear weapons development, and has long been a party to the nuclear non-proliferation regime. Furthermore, Türkiye has been awarded an IAEA "broader conclusion" since 2012, meaning that the IAEA has completed a holistic examination of the country's entire nuclear infrastructure and programme and confirmed that the country is adhering to all norms and standards indicating that its nuclear efforts are being designed solely to use nuclear energy for peaceful purposes.[36] Thus, the recent discussions about Türkiye's alleged possible future development of nuclear weapons seem to be based on political motivations rather than on the facts confirmed by regular IAEA inspections. As Varnum states, "this perspective emanates almost exclusively from US and European policymakers and analysts, whose assessments of Türkiye's policymaking are often heavily influenced by mirror-imaging" (i.e. projecting their own mindsets onto Turkish policymakers).[37]

In theory, a propensity for nuclear proliferation is defined by a simple equation that requires not only the intent to acquire nuclear weapons, but also the capability to do so.[38] Even though the assessment of intent might vary, the issue of capability is easier to assess, because it is based on material facts, i.e. the capability of a country's nuclear infrastructure and its possession of delivery systems. In this regard, Türkiye lacks the necessary infrastructure for uranium mining and milling, conversion, enrichment, and fuel fabrication to produce an indigenous supply of nuclear weapons materials.[39] In addition, while Türkiye has been investing in missile technology to target possible threats and reinforce its defence against a ballistic missile attack with a robust intelligence-gathering capability dependent on space-based and unmanned systems, the country's missile capabilities seem to be aimed at providing better defence against regional missile proliferation, and are not designed to provide it with a nuclear-capable delivery system.[40]

Furthermore, the new Turkish approach to accessing nuclear energy has been based on the BOO approach, in terms of which ownership of nuclear power plants will remain in the hands of the suppliers responsible for their construction and operation. The Akkuyu Nuclear Power Plant – the first BOO nuclear project in the world – will be operated and owned by Rosatom. In addition, Türkiye has concluded fuel guarantee and take-back arrangements under which Rosatom supplies the fuel and takes back spent fuel, thus leaving no possibility to divert it for non-peaceful uses. When the BOO model and Türkiye's relevant infrastructure, including delivery systems, are combined with the country's international commitments, such as the IAEA Additional Protocol, Türkiye's nuclear plans are clearly proliferation-resistant.[41]

In short, Türkiye does not have the material capability to implement a nuclear weapons development programme nor the intent to initiate such a programme. President Erdoğan's criticism of the global nuclear order has been referred to as a sign of intent. In that speech Erdoğan had simply stated that nuclear weapons should either be forbidden or permissible to all states of the world in terms of Article VI of the NPT. He was therefore calling out Western states' failure to treat Türkiye equally.[42]

Additionally, nuclear weapons are very unlikely to bring additional security to Türkiye. On the contrary, any attempt to pursue a nuclear weapons programme will severely damage the country's interests and its reputation as a reliable international partner, resulting in its isolation in the international arena and even opening it up to the possibility of interventions that might include not only economic sanctions, but also a possible military intervention. Türkiye is currently passing through a domestic and international political juncture in which its relations with the United States and European Union are in decline. Nevertheless, the country's security policies still align with its historical approach to external security threats, which does not indicate a decision to pursue its own nuclear weapons capability, because it is more practical for it to continue relying on NATO's extended deterrence and to reinforce its conventional defence capabilities.[43]

Conclusion

A detailed analysis of Türkiye's intentions, capabilities, international commitments, and foreign and security policies indicates that the country will not develop nuclear weapons within the current global nuclear order. The country's motivation for acquiring nuclear technology has been consistent throughout the tenures of its various governments with only slight differences, including economic growth, energy needs, modernisation, and energy security. While Türkiye initially sought nuclear energy only to satisfy its growing demand for electricity, energy independence has also become among the primary justification for the nuclear energy programme. In addition, Türkiye's nuclear plans are clearly proliferation-resistant due to the BOO approach and its fuel guarantee and take-back arrangements, while the country does not have nuclear-capable weapons delivery systems. Furthermore, Türkiye has been consistently committed to existing treaties and regimes covering arms control, disarmament, and non-proliferation, while NATO has historically provided deterrence capabilities for the country's defence needs.

For these reasons it is highly unlikely that Türkiye will attempt to develop nuclear weapons, not only in the short term, but also in the longer term. Meanwhile, practical steps should be taken to ameliorate relations between Türkiye as a regional actor and the West. These steps could include, but are not limited to, reinforcing the credibility of NATO's extended nuclear deterrence and strengthening its existing defence commitments to Türkiye's security, improving relations between Türkiye and Western states, finalising the country's membership of the European Union, and engaging with Türkiye as an equal partner.

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