

# **The Security Implications of Nuclear Non-Proliferation in Central Asia: An Iranian View**

**Saideh Lotfian\***

*ABSTRACT* After the USSR dissolution in 1991, the declaration of Central Asia as a nuclear free zone was viewed as a crucial step on the way to solving the greater issues of nuclear non-proliferation, nuclear security and nuclear disarmament in the world. The two great powers which had a history of direct and indirect involvement in this region played a significant role in the creation of the zone. Russia along with the U.S. have been sources of financial and economic assistance to the regional states and used the political leverage of economic incentives to persuade the five regional states to join the treaty to establish the Central Asian Nuclear-Weapon-Free Zone (CANWFZ). The state parties are committed not to deploy, build, receive, and test nuclear weapons on their territories. The main objective of this study is to investigate the significance of the CANWFZ for the inter-state relations and the overall regional stability and security. The key questions posed here are: 1- Does the CANWFZ enhances its member states' national security and regional security? 2- How do major powers view Central Asia's nuclear non-proliferation? The political decision of the Central Asia's leaders not to "go nuclear" was based not on domestic debate but on "top-down" consultation and persuasion of the two superpowers of the Cold War era. These findings are consistent with the assertion that the success of any arms control and nuclear non-proliferation initiative at the regional level is a function of the global actors' cooperation.

*Keywords* Central Asian Nuclear-Weapon-Free Zone, Iran, Nuclear-Weapon States, Nuclear Disarmament, Threshold Nuclear-Weapon States, Regional Security

## **Introduction**

Nuclear weapons have engendered the very insecurities that they were expected to overcome. The states which do not feel that they need to back up their conventional military forces with a nuclear deterrent capability or those which are under the nuclear umbrella of a nuclear-

---

\* **Saideh Lotfian** is a Professor of Political Science in the Faculty of Law and Political Science, the University of Tehran.

Corresponding Author's Email: slotfian@ut.ac.ir/.

weapon state are more likely to adopt a nuclear-weapon-free status. There seems little doubt that security fears and rivalries might lead to the perceived need for nuclear weapons to deter a security challenger and help weaken an adversary's military power position. According to the 2018 SIPRI Yearbook, an estimated 14,465 nuclear weapons are stored in the arsenals of the existing nine nuclear-weapon states—the US, Russia, the UK, China, France, India, Pakistan, Israel and North Korea (SIPRI, 2018). Discounting the threat of annihilating life on Earth, the nuclear-armed states continue to invest in new nuclear weapons. Ellsberg discloses the falsehood of the US claim that its nuclear arsenal is for deterrence and for the last resort. Alarming, the “first-use” policy has always been a cornerstone of US nuclear strategy (2017).

To draw attention to the urgency of addressing the problem of the nuclear arms races, the UN General Assembly designated 26 of September as the International Day for the Total Elimination of Nuclear Weapons (Nuclear Abolition Day).<sup>1</sup> This attempt at raising public awareness is not an isolated case, and fervent calls for nuclear disarmament have been expressed in numerous international multilateral fora. A few transnational disarmament movements have made significant contribution to the better understanding of the general public and the decision-makers about the security risks of the spread of nuclear weapons, and the implication of the nuclear states' unwillingness to abolish their nuclear arsenals.

As more countries develop nuclear capability, the task of nuclear arms control and disarmament will become more complicated. For this reason, the creation of the Central Asian Nuclear-Weapon-Free Zone (CANWFZ) was a positive development for the people who felt threatened and insecure about the destabilization of these newly independent states. Kazakhstan was effectively a threshold nuclear-weapon state due to its nuclear capability which was developed during the days of the nuclear arms race between the United States and the Soviet Union. Apparently, 104 SS-18 intercontinental ballistic missiles were stationed in Derzhavinsk,

---

<sup>1</sup> To ban the development, production and stockpiling of these inhumane weapons, the majority of the UN members gave their support to the Treaty on the Prohibition of Nuclear Weapons, which was adopted by a vote of 122 states in favor in July 2017. Only one state (Netherlands) opposed it; and one state (Singapore) abstained from voting. It opened for signature in September 2017, and it has not yet entered in force (UNODA, 2017).

Leninsk, Semipalatinsk and Zharghiz-Tobe in Kazakh territory. Kazakh authorities decided to send all these warheads to Russia, to destroy the missile silos, to seal 181 underground nuclear testing tunnels, decommission their nuclear facilities, and to secretly transport 600kg of weapons-grade uranium from Ust-Kamenogorsk to the US in 1994 in what was called the Sapphire Project (Oxford Analytica, 2017: 6). To prevent the theft or purchase of Kazakhstan's weapons-usable nuclear materials by "black marketeers, terrorists, or a new nuclear regime", the US air force secretly airlifted them to the Uranium Processing Facility at the Y-12 National Security Complex in Oak Ridge, Tennessee. This amount of Highly Enriched Uranium (HEU) was enough for producing 20-50 nuclear bombs (Tirpak, 1995).

As a result of the Soviet nuclear testing and the storage of nuclear waste, the soil and the groundwater have been contaminated. Many local people died, or their health was destroyed. Villages turned into radioactive wastelands that would remain hazardous for living organisms for many decades (Medvedev, 1980). Concerns about the environmental and humanitarian effects of nuclear testing led to the birth of Kazakh's anti-nuclear movement (UNESCO, 2005). The 2009 unanimous adoption of the UN General Assembly resolution 64/35 which was initiated by Kazakhstan and other sponsors marked 29 August as the International Day against Nuclear Tests. An important goal was to raise public awareness and educate the youth about the environmental and health consequences of nuclear tests (United Nations, n.d.). In 1992, Kazakhstan decided to join the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) as a non-nuclear-weapon state and close the Semipalatinsk nuclear test site (also called the Polygon). When this Central Asian state with over 1,400 nuclear warheads deployed in its territory abandoned its status as a military nuclear power, a very undesirable event was avoided. This action reduced the anxiety and concerns of the neighboring countries and extra-regional actors— notably its contiguous neighbors, Iran, Russia, the EU, and the US— which were worried about the nuclearization of the region.

This paper explores the historical political conditions which led to the creation of the CANWFZ, and offers answers to the following research questions: 1- Has the zone taken into account the core strategic interests of the Central Asian states? 2- Does the CANWFZ enhance the security of the

nuclear-weapon states? 3- Which member states have nuclear facilities such as nuclear power reactors, or uranium enrichment and plutonium reprocessing capabilities? 4- Given the need to focus on societal security challenges in the region, will the Central Asian governments reverse their decision on being 'nuclear free'? The political elites in these states are facing several security challenges on the domestic front and must pay ample attention to finding solutions to the problems of political underdevelopment, the rise of extremism, the threat of terrorism endangering human security, and the environmental degradation which are caused by the capricious and misguided Soviet-era policies as well as associated with climate change. Other challenging issues in Central Asia include: 1-The pervasiveness of ethnic tensions leading to militarization of some regional states; 2- Resource curse giving rise to welfare state limitation in some states despite the existence of huge amounts of natural resources; 3- Cronyism and corruption affecting political equality, political pluralism, political participation and future democratization in the five Central Asian states; and 4- External dependency due to the great power competition as well as the historical, political and economic links among Russia and the Central Asian countries.

The external power competition has sustained the Central Asian strongmen in power regardless of their human rights record. The external powers' foreign policy considerations are viewed as one of the reasons why there has not been a formidable political challenge to their rule. The United States supported Islam Karimov of Uzbekistan in exchange for access to military bases. Chinese and Russian backing of autocratic regimes are explained by their desire to have access to the region's natural resources and increased political influence in Central Asia. The international financial centers help these autocratic regimes in money laundering, bribery, and other corrupt practices to hold on to power (Cooley and Heathershaw, 2017). China, Russia and the United States have embarked on a new "great game" to increase their power and influence in Central Asia and Afghanistan since the events of 9/11 in 2001 (Cooley, 2014).

The autocrats have been able to maintain their hold on power, and silence threatening opposition groups. They use patronage to serve their own interests. Nazarbayev has been at the helm of Kazakhstan's political system since independence. His longevity is in part due to his ability to

gain western and Russian support for his policies. Some of these leaders made use of their countries' proximity to Russia and China to attract U.S. foreign aid to strengthen their economy. However, social and political grievances have the potential of destabilizing these autocratic regimes. As public become increasingly dissatisfied with their leaders because of poor economic performance, widening of the gap between the rich and poor and unrestrained corruption, the likelihood of rebellion by frustrated citizens increases. If the regime is not willing to accommodate social demands, there will be widespread unrest leading to high levels of regional instability. The public sector spending must benefit the population of young people and the less-privileged segments of the society living in poverty. Efforts to improve democratic governance must be on the agendas of the region's policymakers.

### **Theoretical Framework**

Richard Falk argues that “the existence of nuclear weapons, even without the occurrence of nuclear war, interferes with democratic governance in fundamental ways” (1990: 383). He writes about the illegality and immorality of nuclear weapons, and the culpability of political leaders who use these inhumane weapons or threaten to use them against innocent civilians. He continues to claim that “reliance on nuclear weapons is not just one of many governmental functions, it is in many ways the decisive undertaking of national political leadership, the one upon which, almost everyone agrees, all else hinges. If that undertaking is perceived by a substantial fragment of the citizenry as a criminal enterprise, then it will be impossible for political leaders to achieve legitimate authority. Deception, secrecy and coercion will become increasingly indispensable instruments of governance, not to handle anti-social deviants, but to prevent citizens of the highest moral authority from challenging the absolutism of the state. Criminal prosecutions of those who dare expose this state secret of illegitimacy disclose the inevitable dilemma of "democratic" governments that embrace nuclearism” (Falk, 1990: 388).

Two arguments made by a nuclear proponent and a nuclear opponent are presented in *the Spread of Nuclear Weapons*. It is enlightening to examine Scott Sagan and Kenneth Waltz's debate

concerning the consequences of nuclear proliferation, and the competing hypotheses that have been proposed. Sagan argues that “more will be worse”, (1995: Ch. 2) but Waltz believes that “more may be better” (1995: Ch. 1). Looking at the spread of nuclear weapons from organization theory standpoint, Sagan asserts that nuclear proliferation must be “more feared than welcomed” because of the inherent limits of organizational reliability” (Sagan and Waltz, 1995: 136). There is always the danger of nuclear arsenals falling into the hands of military regimes or weak civilian-controlled governments. Moreover, he emphasizes that nuclear deterrence “may not be stable in specific regional settings” (Sagan and Waltz, 1995: 48). The argument that nuclear weapons have lowered the probability of the outbreak of wars between the rival great powers might be true, but one cannot conclude that new nuclear-weapon states will not go to war with each other just because the nuclear-capable U.S. and USSR limited their provocative acts during the Cold War to avoid nuclear wars.

Waltz, using the neorealist structural theory, argues that nuclear weapons proliferation may have a stabilizing influence in interstate relations. A leading scholar in terms of neorealist theory in international politics, Waltz offers many answers to the question of the consequences of the enlargement of the world’s nuclear club for international stability. In reply, Sagan as an advocate of nonproliferation provides a convincing argument why new nuclear-armed states would endanger international society. The notion of the necessity of a world without nuclear weapons implies that nuclear-capable states undermine other states’ national security in a variety of ways. On the one side of the debate are those who complain that the nuclear-armed states are not serious about reduction negotiations and are acting with intentional slowness, and deliberately delaying the nuclear disarmament process. In fact, some have been investing in large-scale nuclear modernization programs for the purpose of making major improvements to their nuclear facilities and capabilities instead of denuclearizing. Abolitionist argue that the best strategy is to take nuclear weapons out of circulation by destroying the existing nuclear arsenals in a reciprocal manner. As a necessary step, they suggest that preventive and sensible remedial measures such as verification and military transparency should be used to lower the risk of future nuclearization.

## **The Role of the Major Nuclear-Weapon States in Regional Denuclearization**

Regional nuclear arms races are to the nuclear-weapon states' disadvantage; and the Big Five, or the P5 which are the five permanent Security Council members have tried to use economic incentives, political persuasion and even threat of the use of military force to destroy threatening nuclear facilities in order to prevent other countries from acquiring nuclear weapons. The counter-proliferation policies have been successful in keeping the number of nuclear-armed states as low as 9. The total number of deployed and non-deployed nuclear warheads in the world which was approximately 70,000 in 1986 has been reduced since the end of the Cold War. However, the estimated number of 14,450 such warheads in early 2018 is alarmingly high.<sup>2</sup> Today's weapons in the nuclear arsenals of the P5 are qualitatively more accurate and destructive. Furthermore, some 1,800 warheads possessed by US, Russia, UK and France are on high alert, "ready for use on short notice." About 3,600 strategic nuclear warheads deployed on Intercontinental Ballistic Missile (ICBMs) and at heavy bomber bases undoubtedly pose an irrefutable security challenge for the humanity. With 13,300 nuclear weapons in their stockpiles, the United States and Russia are in possession of 92% of all global nuclear weapons as of early 2018. The remaining 7 nuclear-armed states have between 10 and 300 nuclear weapons for deterrence and defense (Kristensen and Norris, 2018; and SIPRI, 2018).

The NPT does not prohibit the stationing and deployment of nuclear weapons by the nuclear-armed states in the territory of other states. As part of its extended deterrence strategy aimed at assuring its allies and partners, the US has deployed about 150 B61 bombs at military bases in Belgium, Germany, Italy, Netherlands and Turkey. The American policymakers have justified the stationing of the US nuclear weapons in European territories by asserting that the non-nuclear-weapon states in Europe would not feel

---

<sup>2</sup> At present, the countries with nuclear arms include (the estimated number of weapons in their nuclear arsenals are shown in parentheses): Russia (6,850), the United States (6,450), France (300), China (270), the United Kingdom (215), Pakistan (130-140), India (120-130), Israel (80), and North Korea (10-20) (Kristensen and Norris, 2018).

the need for the acquisition of nuclear capability as long as they remain under the US nuclear umbrella (Norris and Kristensen, 2011; Rühle, 2009). Unfortunately, a few nuclear states (India, Israel, Pakistan) have either not signed the NPT and one nuclear state (North Korea) decided to withdraw from it in 2003. In addition, there are several threshold nuclear-weapon states which can acquire these weapons in a short period of time.

Baumgart and Müller discuss the role of extra-regional actors in persuading the regional states to establish a NWFZ. They write that actors outside the region may be able to persuade the regional states to establish a NWFZ by providing “economic and technological incentives for joining and maintaining a zone”. Moreover, they might be able to “support the verification system by providing information, such as satellite data that might not be accessible to states in the region”. However, regional states must be assured that the external powers are reliable and impartial (Baumgart and Müller, 2004-5: 55). International community welcomed the move by Russia to remove all of USSR nuclear weapons from the territories of the Newly Independent Countries (NICs). One must consider the political and military implications of substantial nuclear capability of Russia in Central Asia. The US and Russia which possess the largest nuclear weapon stockpiles are busy modernizing and deploying new nuclear weapons, while putting pressure on the ‘have-nots’ to adhere to the NPT. A new nuclear arms race between these two states with a combined inventory of more than 90 percent of nuclear weapons in the world will have a devastating impact on international security. It might lead to a different view on the status of nuclear weapons capability as a strategic asset for the smaller states in the international system.

If some states have nuclear weapons capable of destroying non-nuclear states, other states feeling threatened might seek to possess nuclear bombs. Israel as a silent nuclear state, and North Korea as a “rogue” nuclear power, India and Pakistan as nuclear states outside the NPT have been weakening the nuclear non-proliferation regime. The so-called hold-out states have not been forced to sign the NPT and be in full-compliance with the treaty. Russia, the United States and China will continue to strengthen their nuclear deterrence capabilities in a new round of great powers’ competition as a result of the return of “Cold War” tensions. To maintain and expand their sphere of influence in the international system, the leaders



of these states are doing everything within their powers to achieve superiority in the era of a “Cold Peace”. It is widely recognized that nuclear weapons pose an existential threats to the international community. However, the long-range environmental and health effects of nuclear weapons programs have been ignored by the nuclear-armed states. The reluctance of these states to move rapidly toward nuclear disarmament has frustrated international efforts to create a world free of nuclear weapons.

### **The Central Asian Nuclear-Weapon-Free Zone (CANWFZ)**

Article VII of the NPT recognizes the right of any group of states to create nuclear-weapon-free zones. According to a 1975 UN General Assembly resolution, Nuclear-Weapon-Free Zones (NWFZs) are effective means for preventing horizontal and vertical nuclear proliferation. A NWFZ is defined as:

“[a]ny zone recognized as such by the General Assembly of the United Nations, which any group of states, in the free exercises of their sovereignty, has established by virtue of a treaty or convention whereby:

- (a) The statute of total absence of nuclear weapons to which the zone shall be subject, including the procedure for the delimitation of the zone, is defined;
- (b) An international system of verification and control is established to guarantee compliance with the obligations deriving from that statute” (UNGA, 1975: 24).

As of 2018, 112 countries have adhered to the five regional treaties dealing with the existing NWFZs.<sup>3</sup> These important arms control treaties include:

1. *The Treaty of Tlatelolco* (with 33 signatories in Latin America and Caribbean; opened for signature at Mexico City on 14 February 1967; entered into force for each government individually between 1967 and 2002; the Government of Mexico as depositary);

---

<sup>3</sup> There are other suggestions for the denuclearization of certain areas. It is notable that one of the earliest proposals is for a NWFZ in the Middle East. Starting with the resolution 3263 of 9 December 1974, the UN General Assembly has adopted 44 resolutions calling for the “establishment of a nuclear-weapon-free zone in the region of the Middle East” (For a list of these resolutions, see UNGA, 2017).

2. *The Treaty of Rarotonga* (with 13 signatories in South Pacific; signed at Rarotonga on 6 August 1985; entered into force on 11 December 1986; the Pacific Islands Forum Secretariat as depositary);
3. *The Treaty of Bangkok* (with 10 signatories in Southeast Asia; opened for signature at Bangkok on 15 December 1995; entered into force on 27 March 1997; the Government of Thailand as depositary);
4. *The Treaty of Pelindaba* (with 51 signatories in Africa; signed at Cairo on 11 April 1996; entered into force on 15 July 2009; the African Union as depositary);
5. *The Treaty of Semipalatinsk* (with 5 signatories in Central Asia; opened for signature at Semipalatinsk on 8 September 2006; entered into force on 21 March 2009; the Government of Kyrgyzstan as depositary) (UNODA, 2018c).<sup>4</sup>

The Treaty of Tlatelolco came into being because of the 1962 Cuban Missile Crisis. In April 1963, the leaders of five Latin American states at the initiative of the Mexican president announced their willingness to start negotiation for a regional nuclear-weapon-free zone in which the testing, use, manufacturing, and acquisition of such weapons would be prohibited (Goldblat, 2002: 198). Three features of this treaty are particularly significant: First, it covers the entire region. With the ratification of Cuba in 2002, all 33 Latin American and Caribbean countries have endorsed this arms control agreement which is in force indefinitely. Second, for verification and compliance, an inter-governmental agency called the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL) has been established. The OPANAL and the International Atomic Energy Agency (IAEA) guarantee the full compliance of the parties to the treaty. Third, the P5 have all acceded to the Additional Protocol II of the treaty which calls on the nuclear weapon contracting parties not to use or threaten to use these weapons against the states within the zone (OPANAL, 2018; IAEA, 2017). Other states interested in banning nuclear weapons from their neighborhood have used this treaty as a model for their regional NWFZ treaties.

---

<sup>4</sup> Other international treaties which have been the basis for keeping the South Pole, the seabed and the ocean floor, the outer space and the celestial bodies free of nuclear weapons are: Antarctic Treaty of 1959, Outer Space Treaty of 1967, Moon Agreement of 1979, Seabed Treaty of 1971 (for a list of the signatories and the text of these treaties, see UNODA, 2018c).

Following the collapse of the Soviet Union and the withdrawal of Soviet forces from Mongolia, the establishment of a single-state nuclear-weapon-free zone (SS-NWFZ) in the land-locked Mongolia was unilaterally declared on 25 September 1992.<sup>5</sup> Mongolia's nuclear policy forbids the deployment of nuclear and other weapons of mass destruction (WMD) on its territory.<sup>6</sup> Mongolia is surrounded by the Chinese and Russian territories and does not share a common border with the five Central Asian states. However, it lies in close geographical proximity of Kazakhstan. Mongolia's nuclear-weapon-free status is supported by the five major nuclear-weapon states,<sup>7</sup> as a Confidence Building Measure (CBM) contributing to nuclear non-proliferation. At the height of the border clashes between China and the USSR in 1969, the Soviet leaders had allegedly deployed nuclear-armed missiles to Mongolia and raised the risk of the escalation of the conflict into a full-scale nuclear war (Enkhsaikhan as cited by Tuya, 2012: 2). Mongolia has tried to rely on the international organizations to protect itself from its two powerful nuclear-weapon contiguous neighbors.

Similarly, a major contributing factor for the non-proliferation policies of the Central Asian states was the need to gain international protection against the nuclear-capable PRC and Russia. The CANWFZ treaty was opened for signature on 8 September 2006 and entered into force on 21 March 2009. All five Central Asian states (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) have signed and ratified the treaty for unlimited duration. Furthermore, all five Central Asian states became members of the International Atomic Energy Agency. The

---

<sup>5</sup> The UNGA resolution 55/33S was adopted on 12 January 2001 and internationally recognizes Mongolia's SS-NWFZ (UNGA, 2001).

<sup>6</sup> It is noteworthy that the 'Law of Mongolia on its nuclear-weapon-free status' which entered into force on 3 February 2000 after it was adopted by the Parliament of Mongolia, "prohibits an individual, legal person, or any foreign state on the territory of Mongolia from developing, manufacturing or otherwise acquiring, possessing, or having control over nuclear weapons; stationing or transporting nuclear weapons by any means; testing or using nuclear weapons; dumping or disposing nuclear weapons-grade radioactive material or nuclear waste, and transporting nuclear weapons, parts, or components thereof, as well as nuclear waste or any other nuclear material designed or produced for weapons purposes through the territory of Mongolia" (Center for Non-Proliferation Studies, 2013).

<sup>7</sup> China, France, Russia, the United Kingdom, and the United States joined together "for the first time in co-sponsoring the 2010 UNGA resolution" on Mongolia's NWFZ (Tuya, 2012: 12).

CANWFZ is the first nuclear free zone in the Northern Hemisphere. The signatories are obligated to accept IAEA's comprehensive safeguards agreement and the additional protocol to that agreement as well as meeting the requirement of international standards regarding the security of nuclear facilities as measures against nuclear terrorism and smuggling of nuclear materials in Central Asia (International Atomic Energy, 2009).

A NWFZ is most likely to be established among states whose relations have involved some degree of cooperation. In the case of Central Asia, the fact is that the region was previously an integral part of the Soviet Union and continued to be influenced by the great powers' balance of power politics. As for the reasons why the leaders in Central Asia willingly and enthusiastically accepted the idea of a nuclear free zone, an argument can be made that none of the regional states had the resources and capability to acquire nuclear weapons. Furthermore, one must consider the asymmetries in national resources and power between the Russian Federation as the world's largest country and the other successor states of the Soviet Union. A comparison between the resources of Russia and Central Asian countries show great power disparity. It was estimated that around 70.8 million people (i.e., less than 1% of the world population which exceeded 7.55 billion) resided in Central Asia in 2017. As Table 1 indicates, the population of the Russian Federation is nearly twice the total population of the five Central Asian countries. Likewise, Russia's GDP is more than five times the GDP of these states. The power asymmetries between the Central Asian and Russian military forces in terms of the quality and quantity of military equipment and technologies are incontestable. The total number of active and paramilitary forces<sup>8</sup> in Central Asia was close to 216700. While the corresponding figure for Russia was an estimated 3,454,000 military personnel. There were a number of Russian forces stationed in the territory of Kyrgyzstan (500) and Tajikistan (5,000) (Central Intelligence, 2018: various pages; IISS, 2018: various pages; UNDESA, 2017). Due to lack of transparency in many regional states, much of the military expenditures reported must be treated with caution and a grain of salt.

---

<sup>8</sup> Paramilitary forces might include national guards or border service, internal security troops or state security service and are under the Ministry of Defense or the Ministry of Interior in Central Asian countries.

Table 1- Central Asia's Population, GDP, GDP<sub>pc</sub>, HDI and Defense Budget, 2017

Country	Population (in mn)	GDP (in bn \$)	GDP pc (in \$)	HDI*	MB** %	MB♣ %	MB♣♣ %
Kazakhstan	18.2	156.0	8,585	0.800 (058)	6.88	0.82	0.8
Kyrgyzstan	6.0	7.06	1,140	0.672 (122)	-	3.15	2.9
Tajikistan	8.9	7.23	819	0.650 (127)	0.002	1.25	1.2
Turkmenistan	5.8	41.70	7,522	0.706 (108)	-	-	-
Uzbekistan	31.9	67.50	2,128	0.710 (105)	-	-	-
Total Central Asia	70.8	279.50	3,948	0.708	-	-	-
Russia	143.9	1,470.00	10,248	0.816 (49)	3.1	5.4	4.2

Notes:

\* HDI is Human Development Index in 2017. The figure in the parentheses indicate HDI rank or country comparison to the world. The HDI for the world average was 0.728.

\*\* MB denotes Military Burden and is calculated by the following formula:  $\{(Defense\ Budget / GDP) \times 100\}$ . The data shown in this column are taken from the IISS annual report on military balance.

♣ The data reported in this column are for 2016 and taken from the CIA World Factbook 2018-2019.

♣♣ The figures shown in this column are from UNDP, 2018 and refer to the most recent year available during the period 2010-2017. The world average military burden was 2.2 percent.

Sources: (CIA, 2018: various pages; IISS, 2018: various pages; UNDESA, 2017; UNDP, 2018: various pages).

The P5 have declared their support for establishing NWFZ in Central Asia, because they want to protect their nuclear superiority. In fact, the nuclear-capable states have kept a close watch on any non-nuclear weapon state which shows even the smallest sign of interest in military application of nuclear power.

Kortunov, the director of the Department of the Russian Foreign Ministry dealing with nuclear nonproliferation and missile technology transfer in the early 1990s explained the principles of Russian nonproliferation policy by emphasizing that Russia did not want to see an increase in the number of nuclear-weapon states as a result of the fall of the Soviet Union. In fact, the Russian policymakers believed that “all the former republics of the USSR except Russia per se, which is the successor of the Soviet Union in terms of this Treaty, should adhere to it as non-nuclear states and conclude with the IAEA essential control agreements.” The Russian diplomats did not consider the existence of nuclear weapons on the territories of Belarus, Kazakhstan and Ukraine as an obstacle to their adherence to the NPT as non-nuclear states because they were confident of reaching an agreement with the leaders of these three states on the removal of the nuclear weapons stationed on their lands (1995: 148-9). It was clear that in order to protect vital national interest, the reliance on nuclear weapons was an exercise in futility for the newly independent states.

The Russians would not have been the only nuclear states which would have been appalled at the prospect of the nuclearization of Central Asia. With its formidable military force, and impressive nuclear arsenal, Moscow remains a special and strategic partner for the former Soviet Republics. Equally important are the U.S. strategic concerns about the nuclearization of more states. China as a member of the nuclear club was also interested in the denuclearization of Central Asia because of its geographic proximity to this region and the impact that destabilization of these states might have on Chinese Muslim population in Xinjiang, bordering Kazakhstan, Kyrgyzstan and Tajikistan. Furthermore, the US heavy reliance on nuclear deterrence requires that no new states should be allowed to enter the exclusive nuclear club. The presence of nuclear missiles in Kazakh territory and the future role of their nuclear scientists attracted much public attention in early 1990s. Kazakhstan was a threshold nuclear-weapon state. One of Soviet major nuclear weapon test sites (NTS)

was in Kazakhstan.<sup>9</sup> If Kazakhstan had not opted to denuclearize, there was the chance that the acquisition of nuclear capability would have been an acceptable option for other non-nuclear-weapon states. Since more nuclear-armed states were not conducive to the great powers' interests, both Russia and the United States would have exerted game-changing pressures on Kazakhstan to accept an unfavorable political settlement, if Nazarbayev government had not abandoned its nuclear option. Russia had overwhelming quantitative and qualitative edge over Kazakhstan and could inflict heavy damages on Kazakhstan and any other weaker regional states. The Kazakh leaders knew that the costs of keeping the nuclear missiles would outweigh the benefits. If they had tried to maintain their nuclear weapons, they would have had a fate like Libyan Qaddafi, but they made a deal with Russia. For Nazarbayev, denuclearization has paid off because he is still in power.

The Central Asian states joined the 1968 Nuclear Nonproliferation Treaty (NPT), whereby they pledge not to acquire nuclear weapons.<sup>10</sup> However, these states are allowed to use nuclear energy for peaceful purposes, particularly for generation of electricity. As indicated in Table 2, the Central Asian states have also signed other major nuclear arms control agreements such the Comprehensive Test Ban Treaty (CTBT) of 1996.<sup>11</sup> The readiness to sign international arms control agreements and cooperate with the IAEA in a transparent manner should serve as an indication of the lack of a country's nuclear weapons ambition. As depicted in Table 2, Kazakhstan has been signatories of the NPT, CTBT, CWC and CANWFZ. The Kazakh government relinquished all nuclear warheads inherited from the USSR by 1995, closed its nuclear testing sites, and removed most of its weapons-grade nuclear material to the US in exchange for economic aid and support for Nazarbayev.

---

<sup>9</sup> In 1991, the Kazakh government closed the Semipalatinsk nuclear test site where the conduct of 468 nuclear tests had resulted in radioactive contamination (Evseeva et al., 2012).

<sup>10</sup> Uzbekistan joined the NPT in 1992, and the date of adherence to this treaty of the other four Central Asian states was 1994 (See table 2).

<sup>11</sup> All Central Asian states have also signed the 2005 International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT). However, Tajikistan which signed the convention on 14 September 2005 has yet to ratify it (United Nations Treaty, 2018).

The signatories of the CANWFZ have the right to nuclear technology for peaceful use, such as nuclear power generation.<sup>12</sup> The history of nuclear energy development and nuclear weapons are intertwined. States invest in civilian nuclear programs for several reasons including rapid economic growth, combatting environmental problems such as air pollution, gaining international prestige, safeguarding their national interests. Reliable, cheap and climate-safe sources of energy are needed for sustainability. On the nuclear energy management in the region, it would be helpful to find answers to several questions: 1- Which Central Asian countries have a civilian nuclear program aimed at research for peaceful use of nuclear power? 2- Do they have nuclear material (such as uranium and plutonium), nuclear research centers and trained nuclear experts? Kazakhstan is the only Central Asian states with a nuclear power reactor, but this reactor was shut down and is not operational. It was announced that the U.S. National Nuclear Security Administration (NNSA) and Kazakhstan's Institute of Nuclear Physics (INP) are working together to remove all HEU from the INP's reactor (US Department of Defense, 2018: 70). In contrast, Russia has 35 nuclear power reactors in operation, with a 26 053 MW(e) installed capacity, as of June 2016 (IAEA, 2018: 9). Both Russia and Kazakhstan have Uranium Hexafluoride (UF<sub>6</sub>) conversion facilities, but Uzbekistan does not have such facilities (IAEA, 2018, 11). Russia has commercial scale reprocessing facilities.

It is less likely for the Central Asian states to reverse their decision on remaining 'nuclear free'. However, the failure of international efforts to persuade Russia and the US to destroy their strategic and tactical nuclear weapons, and the emergence of a new nuclear state in the Middle East combined with the security problems of the Central Asian countries are among the factors which might lead to the nuclear ambitions of Kazakhstan or Uzbekistan to reach the status of near nuclear-weapon state in the future.

---

<sup>12</sup> Article IV of the NPT states: "Nothing in this Treaty shall be interpreted as affecting the inalienable right of the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Article I and II of this Treaty" (UNODA, 2018a).



Table 2- The Timing of the Adherence of Selected Signatories to the Major International Arms Control Agreements, as of January 2018

Treaties		Country/ Timing						
		KAZ	KYR	TAJ	TUR	UZB	Russia	U.S.
NPT	S*	-	-	-	-	-	1 Jul 68	1 Jul 68
	D	14 Feb 94	5 Jul 94	17 Jan 95	29 Sep 94	7 May 92	5 Mar 70	5 Mar 70
CTBT	S	30 Sep 96	8 Oct 96	7 Oct 96	24 Sep 96	3 Oct 96	24 Sep 96	24 Sep 96
	R	14 May 2002	2 Oct 2003	10 June 98	20 Feb 98	29 May 97	30 June 2000	-
CANWFZ	S	8 Sep 2006	8 Sep 2006	8 Sep 2006	8 Sep 2006	8 Sep 2006	-	-
	R	19 Feb 2009	27 Jul 2007	13 Jan 2009	17 Jan 2009	10 May 2007	-	-
CWC	S	14 Jan 93	22 Feb 93	14 Jan 93	12 Oct 93	24 Nov 95	13 Jan 93	13 Jan 93
	R	23 Mar 2000	29 Sep 2003	11 Jan 95	29 Sep 94	23 Jul 96	5 Nov 97	25 Apr 97

Notes: \* D- denotes "Deposit"; S- denotes "Signed"; R- denotes "Ratified".  
Source: (UN Office of Disarmament Affairs, UNODA, 2018b).

## Summary and Implications

The logic of the advocates of nuclear arms control and disarmament is easy to grasp and illustrates the challenge which nuclear arms race among more states pose for regional and international security. The main conclusion that has been drawn from this study is that the establishment of NWFZs is a step toward a world free of all weapons of mass destruction. As to the implications of the CANWFZ, the following points can be mentioned:

First, the link between nuclear non-proliferation and nuclear disarmament cannot be overlooked. Concerns are raised about the effect of the US-Russia nuclear arms race on the nuclear disarmament and non-proliferation. Smaller nuclear states will follow suit, and refuse abandoning their nuclear weapons stockpiles. As international security environment deteriorates, Kazakhstan and the other non-nuclear-weapon states may anxiously hasten to catch up with the achievements of the militarily nuclear-capable states. Presumably, Kazakhstan was brought under the Russian “nuclear umbrella”. Because of the unpredictability of how things might develop, one cannot be certain that Kazakhstan will not decide to develop a nuclear deterrent of its own because of geopolitical rivalry with Russia in the future. A related concern is that Kazakhstan is a latent nuclear-weapon state because it has nuclear material and knowhow. The Kazakh leaders might decide to help the proliferators which are actively pursuing a nuclear option by providing them with nuclear technology and scientific expertise. At present, Kazakhstan under the leadership of Nursultan Nazarbayev as the head of state since 1990 has relied on its important power resources to become increasingly more active in the international scene and has played a distinct role in arms control diplomacy through international organizations.

Second, research on the link between nuclear deterrence and stability has been complemented by research aimed at the way in which nuclear weapons might influence democratic performance of governments. The case in point is North Korea’s nuclear capability and the endurance of its undemocratic regime despite US recurring efforts at regime change. The argument of the supporters of nuclear proliferation is problematic because they arrive at the conclusion that more nuclear-weapon states lead to a more stable international system. But it is important to realize that many leaders

in Central Asia have restricted civil liberties of the people and have used all means available to them to silence their opponents. Even without nuclear weapons, they have a power advantage over their enemies and competitors. Furthermore, the nuclear weapon advocates ignore the likelihood of accidental launch of nuclear weapons and nuclear terrorism.

It is easier to establish a nuclear-weapon-free zone (NWFZ) in the region when no regional state possesses nuclear bombs. However, Kazakhstan's nuclear future was a decisive factor in the plan to take nuclear weapons out of the strategic equation in Central Asia. One of the most important factors which led to the removal of nuclear weapons from Kazakhstan was the direct involvement of the two former superpowers with the desire to entice the newly independent states to join their external sphere of influence. The Soviet republics were heavily dependent on Moscow in terms of political authority and capabilities. As the heir to the Soviet nuclear legacy, Russia was much more powerful than any other former republics in terms of its military and economic capabilities. As a result, Russian leaders have tried to dominate the Central Asian states through a combination of economic, military and cultural instruments of foreign policy. A second decisive factor was the financial incentives provided by Washington. It should be borne in mind that decision-makers with a rational choice perspective select an alternative with the lowest cost and maximum benefits. When Russia and the US dangled the benefits gained in terms of economic and military assistance before the Central Asian leaders in exchange for declaring their region a NWFZ, they were persuaded that the benefits would be higher than the costs of taking such a course of action.

Nuclear proliferation in Central Asia would have influenced the lives of all nations in the region and beyond. The idea of establishing the NWFZ in Central Asia to prevent further nuclearization was part of the plan to create a regional security arrangement, aimed at promoting mutual security and strategic stability. The irony is that if nuclearization is an unacceptable option, why do the nuclear-weapon states— particularly Russia, the US and China— still hold on to their nuclear weapons. These external powers' considerable interest in Central Asia has not declined since the creation of the NWFZ. Moscow, Washington and Beijing have shown their determination for sustained involvement in the regional affairs.

These influential actors have economic, political and strategic interests in the region, and pursue specific objectives in confronting the proliferation problem in Central Asia.

**Authors' Statement:** The author declares that she has fully observed all ethical issues including plagiarism, double publication and/or submission, redundancy, data fabrication and/or falsification, informed consent, misconduct, etc.

## References

- Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL). (2018) *Additional Protocols*. Available at: <http://www.opanal.org/en/additional-protocols> (accessed 12 March 2018).
- Baumgart, C. and H. Müller. (2004-5, Winter) "A Nuclear Weapon-Free Zone in the Middle East: A Pie in the Sky?" *Washington Quarterly* 28, 1: 45-58.
- Center for Non-Proliferation Studies. (2013, January 28) "Nuclear-Weapon-Free Status of Mongolia," *Inventory of International Nonproliferation Organizations and Regimes*. Available at: [https://www.nonproliferation.org/wp-content/uploads/2013/12/nw\\_fz\\_mongolia.pdf](https://www.nonproliferation.org/wp-content/uploads/2013/12/nw_fz_mongolia.pdf) (accessed 12 March 2018).
- Central Intelligence Agency. (2018) *The CIA World Factbook, 2018-2019*. New York: Skyhorse Publishing.
- Cooley, A. (2014) *Great Games, Local Rules: The New Great Power Contest in Central Asia*. Oxford: Oxford University Press.
- Cooley, A. and J. Heathershaw. (2017) *Dictators Without Borders: Power and Money in Central Asia*. New Haven, CT: Yale University Press.
- Ellsberg, D. (2017) *The Doomsday Machine: Confessions of a Nuclear War Planner*. London: Bloomsbury.
- Enkhsaikhan, J. (2000) "Mongolia's Nuclear-Weapon-Free Status: Concept and Practice," *Asian Survey* 40, 2: 344.
- Evseeva, T., et al. (2012) "Estimation of Radioactive Contamination of Soils from the "Balapan" and the "Experimental Field" Technical

- Areas of the Semipalatinsk Nuclear Test Site," *Journal of Environmental Radioactivity* 109: 52-59.
- Falk, R. (1990) "Nuclear Weapons and the End of Democracy," in F. Cancian and J. Gibson, eds. *Making War, Making Peace: The Social Foundations of Violent Conflict*. Belmont, CA: Wadsworth Publishing Company.
- General Assembly of the United Nations, President of the 73rd Session. (2018, September 26) *International Day for the Total Elimination of Nuclear Weapons*. Available at: <https://www.un.org/pga/73/2018/09/26/international-day-for-the-total-elimination-of-nuclear-weapons> (accessed 27 September 2018).
- Goldblat, J. (2002) *Arms Control: A New Guide to Negotiations and Agreements*. Stockholm: Stockholm International Peace Research Institute.
- International Atomic Energy Organization (IAEA). (2009, March 24) *Nuclear-Weapon-Free Zone in Central Asia: IAEA Welcomes Entry into Force of Treaty Joining Five States in Region*. Available at: <https://www.iaea.org/newscenter/news/nuclear-weapon-free-zone-central-asia> (accessed 10 March 2018).
- International Atomic Energy Agency (IAEA). (2018) "Status and Trends in Spent Fuel and Radioactive Waste Management," *IAEA Nuclear Energy Series No. NW-T-1.14*. Vienna: IAEA. Available at: [https://www-pub.iaea.org/MTCD/Publications/PDF/P1799\\_web.pdf](https://www-pub.iaea.org/MTCD/Publications/PDF/P1799_web.pdf) (accessed 5 March 2018).
- International Atomic Energy Agency (IAEA). (2017) *Treaty for the Prohibition of Nuclear Weapons in Latin America (Tlatelolco Treaty)*. Available at: <https://www.iaea.org/publications/documents/treaties/treaty-prohibition-nuclear-weapons-latin-america-tlatelolco-treaty> (accessed 5 March 2018).
- International Institute for Strategic Studies (IISS). (2018) "Chapter Five: Russia and Eurasia," in *The Military Balance 2018*. London: the IISS.
- Kortunov, S. (1995) "Nonproliferation and Counterproliferation: A Russian Perspective," in W. Lewis and S. Johnson, eds. *Weapons of Mass Destruction: New Perspectives on Counterproliferation*.

- Washington DC: Center for Nonproliferation Research, Institute for National Strategic Studies, National Defense University Press.
- Kristensen, H. and R. Norris. (2018) *Status of World Nuclear Forces*. Available at: <https://fas.org/issues/nuclear-weapons/stat-us-world-nuclear-forces> (accessed 2 March 2018).
- Medvedev, Z. (1980) *Nuclear Disaster in the Urals*. New York: W. W. Norton & Company.
- Norris, R. and Kristensen, H. (2011, January) "US Tactical Nuclear Weapons in Europe, 2011," *Bulletin of the Atomic Scientists* 67, 1: 64-73.
- Oxford Analytica. (2017, September) *Kazakhstan's Examples in Promoting Nuclear Non-Proliferation*. Available at: <https://www.oxan.com/media/1960/kazakhstan-nuclear-non-proliferation.pdf> (accessed 2 March 2018).
- Rühle, M. (2009) "NATO and Extended Deterrence in a Multinuclear World," *Comparative Strategy* 28, 1: 10-16.
- Sagan, S. and K. Waltz. (1995) *The Spread of Nuclear Weapons*. New York: W. W. Norton & Company.
- SIPRI. (2018) "World Nuclear Forces," in *SIPRI Yearbook 2018: Armaments, Disarmament and International Security*. Oxford: Oxford University Press.
- Tirpak, J. (1995, August). "Project Sapphire," *Air Force Magazine* 78, 8. <http://www.airforcemag.com/MagazineArchive/Pages/1995/August%201995/0895sapphire.aspx> (18 April 2018).
- Tuya, N. (2012, August 31) "Mongolia's Nuclear-Weapon-Free Status: Recognition vs. Institutionalization," *Working Papers by CEAP Visiting Fellows*. Washington D.C.: Brookings Institution. Available at: <https://www.brookings.edu/research/mongolias-nuclear-weapon-free-status-recognition-vs-institutionalization> (accessed 3 March 2018).
- United Nations. (n.d.) *International Day Against Nuclear Tests 29 August*. Available at: <http://www.un.org/en/events/againstnucleartestsday> (accessed 21 April 2018).
- United Nations Department of Economic and Social Affairs (UNDESA), Population Division (2017). *World Population Prospects: The 2017*

- Revision*. Available at: <https://esa.un.org/unpd/wpp/DataQuery> (accessed 2 March 2018).
- United Nations Development Program (UNDP). (2018) *Human Development Indices and Indicators 2018 Statistical Update*. New York: the UNDP. Available at: [http://www.hdr.undp.org/sites/default/files/2018\\_human\\_development\\_statistical\\_update.pdf](http://www.hdr.undp.org/sites/default/files/2018_human_development_statistical_update.pdf) (accessed 16 May 2018).
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2005) "Audiovisual Documents of the International Antinuclear Movement "Nevada-Semipalatinsk"," *Memory of the World*. Available at: <http://www.unesco.org/new/en/communication-and-information/memory-of-the-world/register/full-list-of-registered-heritage/registered-heritage-page-1/audiovisual-documents-of-the-international-antinuclear-movement-nevada-semipalatinsk> (accessed 23 April 2018).
- United Nations General Assembly (UNGA). (1975, 11 December) *Comprehensive Study of the Question of Nuclear-Weapons-Free Zones in all its Aspects, General Assembly Resolution (3472 B)*. Available at: <https://documents-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/001/85/IMG/NR000185.pdf?OpenElement> (accessed 3 March 2018).
- United Nations General Assembly (UNGA). (2001, January 12) *Resolution Adopted by the General Assembly on Mongolia's International Security and Nuclear-Weapon-Free Status, 55th Session, Agenda Item 73, A/RES/55/33: 30*. Available at: [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/55/33](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/55/33) (accessed 1 March 2018).
- United Nations General Assembly (UNGA). (2017, December 11) *Resolution adopted by the General Assembly on 4 December 2017, Establishment of a Nuclear-Weapon-Free Zone in the Region of the Middle East, 72<sup>nd</sup> Session, Agenda Item 95*. Available at: <http://undocs.org/A/RES/72/24> (accessed 1 March 2018).
- United Nations Office of Disarmament Affairs (UNODA). (2018a) *Treaty on the Non-Proliferation of Nuclear Weapons (NPT), Text of the Treaty*. Available at: <https://www.un.org/disarmament/wmd/nuclear/npt/text> (accessed 10 March 2018).

- . (2018b) *Status of the Treaty on the Non-Proliferation of Nuclear Weapons*. Available at: <https://www.un.org/disarmament/wmd/nuclear/npt> (accessed 10 March 2018).
- . (2018c) *Nuclear-Weapon-Free Zones*. Available at: <https://www.un.org/disarmament/wmd/nuclear/nwfz> (accessed 10 March 2018).
- . (2017) *Treaty on the Prohibition of Nuclear Weapons*. Available at: <https://www.un.org/disarmament/wmd/nuclear/tpnw> (12 February 2018).
- United Nations Treaty Collection. (2018) *International Convention for the Suppression of Acts of Nuclear Terrorism, New York, 13 April 2005*. Available at: [https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg\\_no=XVIII-15&chapter=18&Temp=mtdsg3&clang=\\_en](https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XVIII-15&chapter=18&Temp=mtdsg3&clang=_en) (accessed 3 March 2018).
- US Department of Defense, Office of the Secretary of Defense. (2018, February) *Nuclear Posture Review*. Available at: <https://dod.defense.gov/News/SpecialReports/2018NuclearPostureReview.aspx> (accessed 11 March 2018).