

KAZAKHSTAN'S LEADERSHIP IN INTERNATIONAL RELATIONS: THE CASES OF NUCLEAR AND ENVIRONMENTAL SECURITY

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Manuscript received: 16/11/2022

DOI: 10.52123/1994-2370-2022-955

UDC 327.36

CICSTI 11.25.37

Abstract. This article examines how Kazakhstan exercises global leadership in international relations. By analysing Astana's foreign policy initiatives in the areas of nuclear and environmental security, this article seeks to explain how Kazakhstan has employed its power and diplomatic resources to influence global affairs in accordance with its vision and interests. Based on the study of two cases with the analysis of documentary sources, this article demonstrates that Kazakhstan adopted a three-pronged leadership strategy by projecting itself as a role model, initiator, and mediator.

Keywords: Kazakhstan, International Relations, Global Leadership, Nuclear Non-proliferation, Environmental Security.

Аңдатпа. Бұл мақалада Қазақстанның халықаралық қатынастарда жаһандық көшбасшылықты қалай жүзеге асыратыны қарастырылады. Атап айтқанда, Қазақстан өзінің көзқарасы мен мүдделеріне сәйкес жаһандық проблемаларды шешу және оларға ықпал ету үшін өзінің энергетикалық ресурстарын қалай пайдаланып жатқанын түсіну және түсіндіру мақсатында еліміздің ядролық және экологиялық қауіпсіздік саласындағы сыртқы саяси бастамаларына назар аударады. Құжаттық дереккөздерді талдау арқылы екі кейсті зерделеу негізінде бұл мақалада Қазақстанның үлгі, бастамашы және делдал ретінде үш өлшемді көшбасшылық стратегиясы қабылданғаны көрсетілген.

Түйін сөздер: Қазақстан, халықаралық қатынастар, әлемдік көшбасшылық, ядролық қаруды таратпау, экологиялық қауіпсіздік.

Аннотация. В данной статье рассматриваются вопросы осуществления Казахстаном глобального лидерства в международных отношениях. В частности, на внешнеполитических инициативах страны в области ядерной и экологической безопасности для того, чтобы понять и объяснить о том, как Казахстан использует свои энергетические ресурсы в целях разрешения и влияния на глобальные проблемы в соответствии со своим видением и интересами. На основе двух тематических исследований посредством анализа документальных источников в данной статье показано, что Казахстан принял трехмерную стратегию лидерства в качестве модели, инициатора и посредника.

Ключевые слова: Казахстан, международные отношения, мировое лидерство, ядерное нераспространение, экологическая безопасность.

Introduction

Located at the crossroads of Europe and Asia, Kazakhstan occupies a unique geopolitical position. The Central Asian state's strategic location at the "nexus of Eurasia," vast territory and well-endowed natural resources have made it a "pivotal state" in the international system (Holbraad, 1984; Rice, 2005). In the meantime, Kazakhstan faces significant international challenges. Not only is it surrounded by great powers and subject to the influence of powerful international forces; the country's domestic developmental challenges – from

water shortage to the proliferation of weapons of mass destruction – are by nature transnational. To advance its national interests, Kazakhstan has long been playing the role of a model, initiator, and mediator (Holbraad, 1984) in regional and international affairs. Indeed, Kazakhstan has long been known to pursue a "multi-vector" foreign policy since it gained independence in 1991. A multi-vector foreign policy strategy is designed to serve three interrelated objectives: balancing great powers against each other to secure the space for strategic maneuver, building a positive global image of the country, and promoting regional and

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global security. The country's multilateral diplomacy, which is based on a "pragmatic" and "proactive" approach, is considered the key in promoting its foreign policy objectives and initiatives (Foreign policy concept, 6 March 2020). Soon after its independence, Kazakhstan initiated the Conference on Interaction and Confidence-Building Measures in Asia in 1992. Since then, it has continued to play an active role in different intergovernmental organizations, from chairing the Organization for Security and Cooperation in Europe in 2010, becoming a non-permanent member of the United Nations Security Council for 2017-2018, to participating in regional groups such as the Collective Security Treaty Organization or the Shanghai Cooperation Organization.

While "multivectorism" has enabled Kazakhstan to navigate a challenging external environment, Astana has been unusually active in the realm of global and regional governance. As Engvall and Cornell put it, Kazakhstan is the most proactive and innovative state among the former USSR countries by being a unilateral initiator of nuclear non-proliferation regime, a promoter of regional economic integration and sustainable development (Engvall & Cornell, 2015). Kazakhstan's unusually active role in global governance, especially through its representation of Central Asia in the United Nations Security Council and active participation in shaping the global agenda of nuclear and environmental security, resembles the leadership activities of an emerging middle power. For a long time, the literature has referred to Kazakhstan as a small power with limited diplomatic missions and no outside influence (Hey, 2003). I argue that Kazakhstan should be conceived as an emerging middle power that has exercised non-structural leadership in global governance. Leadership concept could be a useful and value adding theoretical lens from which to explain and interpret how Kazakhstan has searched for and exercised leadership in its "niche" in global governance (Cooper, 1997).

This article examines how Kazakhstan has exercised non-structural leadership through its initiatives in the areas of nuclear and environmental security. Through the study of two cases with analysis of documentary sources, this article shows that Kazakhstan adopted a three-pronged

strategy of leadership as model, initiator, and mediator (Holbraad, 1984; Cooper, Higgott and Nossal, 1993). This article will proceed as follows. The first section explains the research method and materials used in the study of Kazakhstan's leadership. This will be followed by the two case studies. The second section will examine Kazakhstan's leadership in the promotion of nuclear nonproliferation. The third section will shift the focus to Kazakhstan's leadership in global environmental governance. The conclusion provides a final evaluation of Kazakhstan's leadership activities as a model, initiator, and mediator.

Materials and methods

To examine Kazakhstan's global leadership, this article examines the cases of nuclear and environmental security. In the analysis of the two cases, the author will draw upon various types of documentary sources from official documents, statements or remarks made by government officials to newspaper articles, in order to understand Kazakhstan's international vision and how Astana employed the country's power and diplomatic resources to exercise leadership in the global governance of nuclear and environmental security. Some of these materials are available from online databases. Others are accessed in the National Library of Kazakhstan. In addition, I interviewed several leading experts and policymakers in Kazakhstan in order to understand the context in which Kazakhstan's foreign policy decisions are made and exercised.

Kazakhstan and Nuclear Security

Problem setting

In his classic book on leadership, James MacGregor Burns explains that

"Leadership over human beings is exercised when persons with certain motives and purposes mobilize, in competition or conflict with others, institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers" (Burns, 2010).

If leadership is based on the existence and accomplishment of common goals

shared by people and societies, a leader's own experience can be of critical importance in "arousing" the motives of followers. In this regard, Kazakhstan's leadership in promoting nuclear nonproliferation has been inseparable from the country's historical legacy of Soviet nuclear testing from 1949 to 1989. The International Commission on Radiological Protection found that terrestrial radiation in some areas of Kazakhstan is two to three times higher than the global average of 1.5 to 6.0 mSv/a (Bunnenberg, 2000). The causes of high radiation were uranium mining in the 8 regions of Kazakhstan (at about 100 sites) since 1950, production of nuclear fuel and nuclear detonations between 1949 and 1990 (Bunnenberg, 2000). During the Cold War, the Semipalatinsk Nuclear Test Site (SNTS) was the main nuclear testing ground of the Union of Soviet Socialist Republics (USSR) in the territory of Kazakhstan. In Semipalatinsk and other less well-known nuclear test sites, radiation level could range from 10 to 50 μ Sv/h.

The researchers revealed that 1.5 million people living in the vicinity of the test sites in Semipalatinsk, Karaganda and Pavlodar were exposed to severe radiation (Demytrie, 2009). According to statistics, 158 cases of cancer were found in a population of 100 thousand in 1980; the number tripled after 1990. The population inhabiting near the testing grounds was not fully evacuated by soviet authorities - only 138 people were relocated. (Tretyakova, 2019; Gelaev, 2015) Urban areas were also affected without any recovery plans and vegetation (Jarbusynova, 2001). Today, there is a law assigning compensation, payments and support to the inhabitants who were exposed to ionizing radiation as a consequence of nuclear testing at the SNTS.

The important measure that was undertaken after the dissolution of the USSR was the official closure of the site in 1991 (Tretyakova, 2019). Today, the SNTS serves as a site for researchers to assess the impact of nuclear detonations and performing the recovery processes of testing fields. In this regard the role of the National Nuclear Center (NNC) of the Republic of Kazakhstan is irreplaceable. Established on 15th of May 1992 to advance sustainable development in the country till 2050, the NNC pursues five strategic goals: promoting nuclear

nonproliferation; eliminating the consequences of nuclear testings; managing atomic energy and the safety of nuclear power plants; training specialists for Kazakhstan's nuclear industry; and studying the radioecology of regions (National Nuclear Center of the Republic of Kazakhstan, n.d.). The legal framework on restoring and protecting the terrestrial ecosystems consists of:

- the law on the social protection of the citizens and victims of the Semipalatinsk nuclear test site of 18th December 1992;
- the regulation on the disposal of radioactive waste from 18th October 1996;
- the law on atomic energy use of 14th April 1997;
- the environmental code from 2007;
- the concept of transition of Kazakhstan to a green economy;
- and the programme on modernization of solid household waste management system for 2014 - 2050 from June 9, 2014.

To achieve the aforementioned goals, which were subsequently incorporated into the concept of transition of Kazakhstan to a green economy and to the Kazakhstan-2050 strategy, the NNC established cooperation with the International Atomic Energy Agency (IAEA), the Russian Institute for Nuclear Research and the Nuclear Society of Kazakhstan. The center also participates in the Forum for Nuclear Cooperation in Asia. With the support of the IAEA, the NNC conducts radiological surveys in the SNTS, the area of which equals to 18,500 square kilometers. According to General Director of the NNC Batyrbekov Erlan (2016), 50 percent of the area of the Semipalatinsk region has already been examined; survey of the rest will be completed by 2030. According to the experts from the NNC center, 90 percent of the land examined is suitable for agricultural use; the other 10 percent, where the detonations took place, would never be suitable for human use again because of the serious radiation (Batyrbekov, 2016).

Kazakhstan's Leadership

Kazakhstan's aspiration to contribute to the global nuclear security, indeed, is a manifestation of the magnitude of traditional and non-traditional security challenges both inside and outside the country, such as ensuring national interests and national

security, elimination of the consequences of nuclear tests at SNTS and decreasing the radiation level in the testing sites that could range from 10 to 50 $\mu\text{Sv/h}$ (Kapparov, 2011; Gershuni, 2018). To raise international awareness and promote cooperation in addressing these traditional and non-traditional security challenges both inside and outside of Kazakhstan, the country actively participates in international organizations including the United Nations, International Atomic Energy Agency, Organisation for Economic Co-operation and Development, whose missions and activities correspond with the country's national interests and security.

The most significant contribution of Kazakhstan to global nuclear security and building a safer world free of nuclear weapons was its decision to forgo the status of nuclear-weapon state. In the 1990s, after the dissolution of the USSR, Kazakhstan possessed the fourth largest nuclear and missile arsenal in the world. For example, on our territory

“There were 104 intercontinental SS-18 ("Satan") ballistic missiles in our territory. 1,400 nuclear warheads were placed inside them. Our 40 aerodromes hosted 40 Tu-95 MS strategic bombers with 370 nuclear cruise missiles” (Nazarbayev, 2016).

In comparison, the nuclear potential of Kazakhstan at that time was greater than the nuclear power of France, Great Britain and China combined together. Kazakhstan's other notable contributions to the global nuclear security and its main diplomatic achievements include:

- creating the “Central Asian Nuclear Weapon Free Zone” (CANWFZ) with other Central Asian states.
- campaigning for the establishment of the “International Day against Nuclear Tests” by the United Nations.
- establishing the “Abolish Testing. Our Mission” (ATOM) Project to educate the world about the impact of nuclear weapons, drafting a Universal Declaration for a “Nuclear Weapon Free World”, which was adopted by the UN General Assembly in December 2015, and
- playing the role of mediator by hosting multilateral negotiations (the Iranian and Syrian cases) in Astana.

For sure, the country's commitment to

be a non-nuclear power not only enhanced its moral authority to play a leadership role in the international society, but also earned security assurances from the permanent members of the UN Security Council regarding the non-use of nuclear weapons against Kazakhstan (Saudabayev, 2007).

Seeking to educate the current generation about the effects of nuclear weapons and to build a CANWFZ, Kazakhstan initiated the idea to commemorate the closure of the world's second largest testing ground (on 29 August 1991) – the Semipalatinsk nuclear test site (United Nations, n.d.; Saudabayev, 2010). This timely proposition received the support of other UN members. The resolution dated December 2, 2009 declared “August 29th” as the International Day against Nuclear Tests (GA Res 64/35, 2009).

Regional Nuclear-Weapons-Free Zones (NWFZ) constitute the building blocks of the world free of nuclear weapons. The creation of the CANWFZ brought this goal closer, considering that other NWFZs had already been created in Latin America (the 1967 Treaty of Tlatelolco), South Pacific (the 1985 Treaty of Rarotonga), Southeast Asia (the 1995 Treaty of Bangkok) Africa (the 1996 Treaty of Pelindaba). Uzbek President Islam Karimov's initial proposal to establish a nuclear-weapons-free zone in Central Asia at the 48th session of the UN General Assembly in 1993 did not receive an unanimous regional support (The initiative of the President of Uzbekistan, 2014; Adilhodzhaeva, 2016). Nevertheless, the process accelerated after the Almaty Declaration was signed in 1997. With Kazakhstan's support, the Treaty on the Central Asian Nuclear-Weapon-Free Zone was finally adopted in 2006 and entered into force in March 2009 (Potter et al., 2008).

The establishment of the CANWFZ not only strengthens the global nuclear nonproliferation regime, but also contributes to the regional security by shielding the Central Asian states from the possible threats that might come from the close and distant nuclear powers. In 2014, the permanent members of the UNSC signed the Additional Protocol on security guarantee to the treaty on the Central Asian Nuclear-Weapon-Free Zone (Nations Unies, 2020). The security assurance of the United States, Great Britain, France, China and Russia

guaranteed that the UN P5 countries would not station any nuclear weapons on the territories of Central Asian states in the future. Despite the fact that the Treaty on the Central Asian Nuclear-Weapon-Free Zone registers the intention of the signatory states to rehabilitate contaminated nuclear sites in the region, the joint effective solution has not been produced so far (Nations Unies, 2020).

In the developed world, where function international organisations and exists international law, humankind continues to face the risk of global destruction either from weapons of mass destruction or environmental threats. As Foreign Minister of Kazakhstan Erlan Idrissov said, "it is unfortunate that this virus of war is prevalent among many political elites" (Astor, 2016). The political elites of Kazakhstan for this reason have long urged the world to give up nuclear weapons by the UN centenary in 2045, emphasizing that it should be "the main goal of the humankind in the 21st century" (Nazarbayev, 2015). Following the creation of the CANWFZ, Nazarbayev initiated the idea of a Nuclear-Weapons-Free World (Orazgaliyeva, 2015). In collaboration with 35 countries, he promoted the universal declaration for the achievement of a Nuclear-Weapons-Free World that was approved by the United Nations General Assembly in December 2015.

Kazakhstan has also been a strong supporter of the IAEA's mandate on peace and development. According to the Director General of the IAEA - Yukiya Amano, the IAEA cooperates with Kazakhstan on the nuclear energy, human health, especially fighting cancer, agriculture, nuclear security and research (Dixit, 2017). Current projects involve strengthening the radiotherapy and nuclear medicine, improving the wheat mutation breeding, developing the nuclear power infrastructure and strengthening the nuclear forensics (Dixit, 2017). In addition, Kazakhstan has supported the IAEA's ReNuAL project by providing one hundred thousand US dollars of funding for the renovation of the atomic laboratories in Seibersdorf, Austria (The renewal project, 2016; Dixit, 2017).

Kazakhstan's decision to build the IAEA's Low Enriched Uranium (LEU) Bank in its territory deserves recognition, even though the costs and safety of this structure raise concern. Indeed, Energy Minister -

Kanat Bozumbayev did not deny the negative impacts of the Bank on the population in East Kazakhstan in the case of emergency situations. However, according to Alexander Khadanov, Director of the Ulba Metallurgical Plant where the Bank's warehouse will be located, the plant would have high-level security measures (Yurieva, 2016). As the government argued, the Bank will strengthen the international system of guaranteeing the nuclear fuel cycle supply and the non-proliferation regime (Urankaeva, 2017). Sergey Lukashenko clarified that the low-enriched uranium by its radiation characteristics is identical to the uranium Kazakhstan produces, and thus there is no place for concern (Tashkinbayev, 2016). The host state agreement for the LEU Bank was signed on 27th of August 2015. The Bank began operation in September 2017. The IAEA Low Enriched Uranium Storage will provide member states with nuclear fuel reserves in case of low-enriched uranium shortage in the global market (Ferrari, 2016). The IAEA values the Kazakhstan's endeavor to facilitate nuclear non-proliferation and disarmament in the world.

During the Cold War, the international movements calling for nuclear arms limitation had little success until the negotiation process for the Comprehensive Test-Ban Treaty (CTBT) began in 1993 with the support of the UN. Despite the efforts of individual countries, the CTBT seems to need a longer time to take effect while the rest 44 nuclear technology holder countries (such as China, the United States, Egypt, Iran, Israel, North Korea, India, Pakistan etc.) will be ready to sign and ratify it (CTBT, n.d.; CRS Report, 2016). The CTBT was adopted in 1996 and so far, 164 countries have already ratified it. Kazakhstan ratified the treaty in May 2002. To verify the country's compliance with the treaty, five monitoring stations were set up in the country (Kazakhstan National Data Center, n.d.). These devices are the part of the International Monitoring System (IMS) that take record of any detonations happening on the territory of Kazakhstan and pass them to the International Data Centre (IDC) in Vienna (CRS Report, 2016). The latest developments demonstrate the possibility of creating the "world free of nuclear weapons".

The above discussion has shown that Kazakhstan has striven to be a model for

others, mediator, initiator in global nuclear security, an issue-area that has traditionally been dominated by nuclear-armed great powers. Drawing upon the nation's historical experience with the Soviet nuclear testing, Kazakhstan promoted nuclear non-proliferation not only by voluntarily giving up nuclear weapons in 1990s, but by shouldering international responsibilities, shaping the global governance agenda, and facilitating regional and international agreements on nuclear security.

Kazakhstan and Environmental Security

Problem setting

Today Kazakhstan faces a range of environmental challenges, from a high level of greenhouse emissions, land degradation and desertification (Land degradation, n.d.) to industrial pollution and the problem of waste management (United Nation's Economic Commission for Europe, 2008; Technology needs assessment for adaptation, 2013). These problems could be attributed first to the policies of the former USSR such as the wide-scale dryland wheat farming during 1950-1960, the nuclear testings between 1949 and 1991, and the mass extraction and transportation of natural resources to the industrial centres of the USSR. The centralised administrative planning system transformed Kazakhstan into the manufacturer of raw materials (Jarbusynova, 2001). Secondly, Kazakhstan's economy is based on the export of natural resources. It is the world's

biggest producer of uranium (World Uranium Mining Production, 2016), ranked 10th in mining (Key coal trends, 2016); 15th in oil production (The World Factbook, 2015); and 31st in gas production (The World Factbook, 2014). Thirdly, the heat and electricity generation in the country is heavily dependent on coal, which comprises 52.8 % of the national greenhouse gas (GHG) emissions (Technology needs assessment for adaptation, 2013). The country ranked 23rd among the greenhouse gas emitters in the world (Friedrich, Ge and Damassa, 2015; Global Carbon Atlas, 2021). The main sectors producing these high CO₂ emissions are the energy sector, agriculture, industrial processing, and waste (see table 1) (Technology needs assessment for adaptation, 2013). Fourthly, Kazakhstan is one of the largest grain producers in the world. However, the share of the agriculture in GDP has been decreasing since 1991 to 2014 from 26 to 5 percent (The World Bank, 2014). According to the Deputy of Parliament, Zheksebay Duysebaeva, 30% (26.6 million ha) of the total 188 million ha pastures have become useless because of environmental problems (Dusebayev, 2015). To improve the situation requires legal reform (Dusebayev, 2015) and funding for agriculture (Mamytbekov, 2016). The aforementioned data mean that Kazakhstan should strive to achieve the ambitious goals declared in the Strategies Kazakhstan-2030 and Kazakhstan-2050 to become one of the 30 most developed countries in the world by 2050.

Table 1. Greenhouse gas emissions of Kazakhstan by sectors for the period 1990–2014

Sectors	Years				Changes (%)
	1990	2000	2010	2014	
Energy, including power and heat, fossil fuel extraction	319 517.40	152 179.23	255 950.09	258 004.76	-19.3
Agriculture	44 253.06	23 575.62	27 950.87	32 738.60	-26.0
Industrial processes and product use	21 977.99	11 649.62	16 152.48	17 542.11	-20.2
Waste	3 826.81	4 383.73	5 290.42	5 715.69	49.4
Total GHG emissions	389 575.27	191 788.20	305 343.85	314 001.16	-19.4*

*Note: from 1990 till 2014 the GHG emissions reduced to 19.4 percent.

Source: Report of the technical review of the second biennial report of Kazakhstan (8 September 2016). United Nations Framework on climate change. Pp 6-7. Accessed 24 March 2017 at <http://unfccc.int/resource/docs/2016/trr/kaz.pdf>

The United Nations Economic Commission for Europe (UNECE) conducted two assessments of Kazakhstan's environmental condition in order to evaluate the country's progress in addressing environmental problems. According to the UNECE's latest review, Kazakhstan still had a lot to improve in spite of its certain achievements such as:

- Stabilization many globally threatened animal species
- Intensive afforestation work, Implementation of river basin management
- Conclusion of new transboundary water agreements
- Decommissioning of radioactive waste
- Shifting from coal to gas in the heating system
- Improving the country's gas infrastructure.
- Turning to developing green economy (United Nations Economic Commission for Europe, 4 June 2019).

The main recommendations for the government authorities included the followings: support research and innovation in the mining, oil and gas sectors (United Nation's Economic Commission for Europe, 2000, p.140); optimize and make transparent functions of organizations in the environmental management; build a close working relationship with NGOs to raise their awareness on environmental issues (United Nation's Economic Commission for Europe, 2000, p.126); and prioritize the "check and punish" strategy (United Nation's Economic Commission for Europe, 2000, pp.51-53).

Kazakhstan's Leadership

Kazakhstan believes that building a green economy by incorporating environmental considerations into economic policy making offers a promising and optimal solution for the stable future (Green economy concept, 2013; Foreign policy concept, 2020). To contribute to global environmental security efforts in building a sustainable and resilient future for humanity, Kazakhstan espoused the United Nation's 17 Sustainable Development Goals, which constitute the key components of the Global 2030 Sustainable Development Agenda adopted on 25 September 2015 (Aitimova, 2015; The

United Nations, 2015). Sustainable Development for Kazakhstan provides a holistic approach to eradicate poverty and inequality, increase resource efficiency, decrease greenhouse emissions according to the United Nations Rio+20, UN agenda 21 (Green economy concept, 2013). Reducing the country's dependence on the production and processing of fossil fuels would facilitate the development of a sustainable economy that could withstand the sharp fluctuation of raw material prices in the world market (Tukayev, 2016; United Nation's Economic Commission for Europe, 2008). Not only will the transition to a green economy solve Kazakhstan's environmental problems, but it will also reduce unemployment at the same time (Green economy concept, 2013).

The first step towards systemic and economic reforms that would mitigate the global and internal challenges was to incorporate environmental considerations into the existing legal system. To ensure the smooth transition to a green economy and fulfill the responsibilities under international agreements, Kazakhstan introduced new laws while updating the existing ones, including:

- Kazakhstan-2050 Strategy: New Political Course of the Established State" from December 14, 2012;
- Environmental Code of the Republic of Kazakhstan from January 9, 2007;
- Concept of Transition of the Republic of Kazakhstan to a Green Economy from May 30, 2013;
- Programme on Modernization of Solid Household Waste Management System for 2014 – 2050 from June 9, 2014;
- State Programme on Water Resources Management from April 4, 2014;
- Law on Supporting the Use of Renewable Energy from 4 July 2009.

Measures for the transition to a green economy are being implemented in the following areas: sustainable use of water resources; development of sustainable and productive agriculture; energy saving; diversification of power industry; waste management; air pollution reduction (Nazarbayev, 2012; Sabekov, 2016). To coordinate the activities of state ministries in the implementation of the Concept of Transition to a Green Economy, a Council on the Transition to a Green Economy was

established under the President of Kazakhstan on 26 May 2014. The Council is a consultative and advisory authority, responsible for the implementation of the Concept. The executive or subsidiary authority of the Council is the Ministry of Environment and Water Resources of the Republic of Kazakhstan (Nazarbayev, 2014).

Shared understandings of countries are essential in combating transnational environmental problems including air and land pollution, global warming, and depletion of natural resources. In addressing these issues, Kazakhstan utilizes foreign capital, technologies, and expertise. It is willing to embark on the transition to a more sustainable model of development, encourage other Central Asian countries to follow suits by sharing its experience and the latest technologies introduced from abroad through Expo-2017 on “Future Energy” as well as by promoting the Green Bridge Partnership Programme (GBPP). Kazakhstan’s most important decision, in this respect, was to sign the United Nations Framework Convention on Climate Change (UNFCCC) in 1995, the Kyoto Protocol in 2009 and the Paris agreement in 2016. As a signatory of these agreements, Kazakhstan is expected to reduce the GHG emissions at home.

Astana Expo-2017 was hosted with the aim to raise global awareness of the developmental challenges in the developing world and gather the expertise needed for their solution (QazExpo Congress, n.d.). In 2012, Kazakhstan was elected to host the Specialised Expo-2017; the event anticipated more than 100 officials and over 5 million participants from June to September 2017. However, there were far fewer participants than expected. The specialised Expo on “Future Energy” was organized under the subthemes like:

- *Reducing CO2 Emissions*
- *Living Energy Efficiency*
- *Energy for All* (Expo 2017 Astana, n.d.).

By providing a platform to showcase the latest technology in solar, wind, biogas and waterpower, the Expo not only was able provide a new experience to the nation and a powerful impetus to the country’s transition to a green economy but was also able contribute to global sustainable development by promoting green energies.

On October 26, 2016, an exhibition was held in Astana to present the top 100 start-up projects competing to be one of the 30 projects to be displayed in Expo-2017. The sponsors, meanwhile, offered to fund the implementation of the 5 best projects (Daily News, 2016). As Energy Minister, Kanat Bozumbayev pointed out, the best “know-how”, technological breakthrough and promising projects in the production and consumption of traditional and alternative energies will facilitate Kazakhstan’s sustainable development (Sabekov, 2016).

The GBPP, which was unveiled for the first time at the III Astana Economic Forum in 2010 by President Nazarbayev (Galushko, 2016), epitomizes Kazakhstan’s leadership in promoting the sustainable economic development in Central Asia and the wider Eurasian region. By facilitating and coordinating international cooperation, financing support, technological transfer and knowledge exchange, the problem seeks to build a “bridge” between Europe and the Asia Pacific (Charter of the Green Bridge, n.d.). The programme received support in the VI Ministerial Conference on Environment and Development in Asia and the Pacific that was organized in 2010 by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). The Memorandum of Cooperation between Kazakhstan and UNESCAP, which was signed in August 2013 (Charter of the Green Bridge, n.d.). This programme also received the approval of the Committee of United Nation Economic Commission for Europe (UNECE) on Environmental Policy. The practical discussion of this initiative took place at the VII Pan-European Conference “Environment for Europe” in September 2011 in Astana. As President Nazarbayev pointed out, the world urgently needs such cooperation mechanisms to promote the use of new environmentally sound technology and renewable energy resources (Nazarbayev, 2013). In the beginning, the programme would focus on Central Asia with the aim to extend its activities to other parts of Europe and the Asia-Pacific (Charter of the Green Bridge, n.d.).

The GBPP is a global energy-ecological development strategy for the twenty-first century that would serve as a “knowledge hub to advance education, information exchange and knowledge

transfer among participant states and organizations” (Charter of the Green Bridge, 2017). Today, the signatories of the Charter of the GBPP include non-governmental organisations such as the Finnish Water Forum, the Coalition for Green Economy and Development of G-Global (CGEGG), the Eurasian Economic Club of Scientists Association, KazAlliance, Janatu. These civic organisations would participate in the programme’s implementation in the future. The programme also seeks to utilise the capacity of private sector for the effective business management by attracting as many as possible independent contractors who will provide investment and implementation support.

Implementation of the GBPP and transition to a green economy require the requisite expertise Kazakhstan have been developing so far. With the support of the UNDP and Coca-Cola belesteri, the National Academy of Green Technologies and Practices was established in 2015 to provide scientific-analytical support and to promote the use of innovative technologies in government, national companies, business sector and civil society (Yessekina, n.d.). The initial focus of the Academy was on the training of governmental officials, school principals and village governors (akims) (Aitzhanova, 2015). The training sessions at the Academy were conducted by foreign scholars and experts such as Jeremy Rifkin, Chung Rae Kwon, Mikhail Fedorov, Alexander Adam, Yvo de Boer and Georgy Safonov.

The Academy celebrated its anniversary on 2 September 2016 in the green village Arsanay. In a short period since its establishment, the Academy has become the leading consulting office in disseminating the green knowledge and technologies as well as the promoter of green development. The Academy possesses more than two dozen of advanced green technology equipments with an energy efficiency class A, including solar water heaters “KunTech”, electromagnetic air purification devices “A.Borisenko”, biogas plants generating energy from manure and organics, underground greenhouses growing vegetables with fitodiodov light. These green instruments saved 1.2 million tenge in one year since the inception of the Academy. The center also works with the Kazakh Agro

Technical University, Nazarbayev University, and L.N. Gumilyov Eurasian National University in developing green technologies. The CGEGG is establishing centres in other regions of Kazakhstan like Kostanai, Zhambyl and Almaty regions with the support of the government (Rakhimbekova, 2018).

The GBPP aims to develop innovative investment solutions to real and bankable projects in key sectors to promote sustainable economic development (Charter of the Green Bridge, n.d.). According to the UNDP experts, Kazakhstan possesses the high potential of renewable sources (hydro, wind, and solar energies); the agency will assist the country in becoming a regional facilitator and international contributor to the development and introduction of clean technologies that would reduce consumption of hydrocarbon resources. Kazakhstan declared that renewable energy would comprise 3% of the country’s total energy consumption by 2020; the share of renewable energy will rise to 30% by 2030 and 50% by 2050 (Green economy Concept, 2013).

Equally important to Kazakhstan’s transition to a green economy is the application of latest technology in the production and processing of non-renewable fuels (Zhoshybayev, 2015). The government has also started to introduce green technologies to in all sectors of the economy to protect the country from environmental disasters. For example, the use of pyrolysis furnaces in the schools in Eastern Kazakhstan has saved about 65-80 tons of coal in each school every year. This experience led to the decision of the governor of Kyzylorda region to re-equip 32 educational organizations with coal saving furnaces that are worth 1.2 million tenge (Kirgeeva & Ospanova, 2015). In Almaty, a green village was founded in collaboration with Korea. Consisting of 16 houses with a population of over 70 people, the village was equipped with renewable energy technologies. The project not only meets the electricity demand of the village itself, but also provides the neighbouring village of Sarybulak, with electricity and water throughout the year (Kirgeeva & Ospanova, 2015). Another notable achievement is “Solar Roof”, which was launched in collaboration with the German energy agency Dena on the basis of a Memorandum

of Understanding in 2012. Based on the results of the “Solar roof” project, 42 solar panels were installed on the roof of the L.N.Gumilyev Eurasian National University. Recently, LLP “Samruk-Green Energy” and the Eurasian Development Bank signed an agreement on construction of wind power plant costing 14.2 billion tenge. In Almaty has been commissioned 5 small hydropower plants since the green economy project has been started. In addition, Samruk-Green Energy and the German company “KD Stahl-und Maschinenbau GmbH” announced the joint project “Construction of the plant for the production of wind power plants” (Butyrina, 2013).

Under the framework of the GBPP, a Bank of “Green Innovations” and the “Record of Green Technologies” were established to keep record of all directions of green development, which are publicly available to the partners of the GBPP and other interested parties. The databases contain information not just about the green technologies, but also about their costs and effects (Aitzhanova, 2015). The records are published on the official websites of competent authorities, which are accessible to everyone (Coalition for the “Green” economy and the development of G-Global, 2018).

Since the inception of the Green Bridge Partnership Programme and the Green Economy initiative, many international organizations have provided financial and advisory support to Kazakhstan, such as the United Nations (UN), European Union (EU), International Institute for Environment and Development (IIED), USAID, Organization of European Cooperation and Development (OECD), Organization for Security and Cooperation in Europe (OSCE), World Bank (WB), and European Bank of Reconstruction and Development (EBRD). These organizations have supported Kazakhstan’s implementation of its national strategy of green development through partnerships, cooperation programmes and pilot projects. For example, USAID-Kazakhstan Climate Change Mitigation Programme is designed to support the Kazakh policies to reduce the national carbon emissions; the EBRD and Kazakhstan cooperates to develop alternative sources of energies; the World Bank promotes in Kazakhstan the programmes like Kazakhstan Energy

Efficiency Project, Forest Protection & Reforestation Project, Atyrau Pilot Water Supply & Sanitation Project. Kazakhstan multilateral diplomacy plays an important role in securing support and developing effective cooperation with international organizations.

The OECD has assisted the countries in Eastern Europe, Caucasus, and Central Asia (EECCA) to integrate environmental considerations into economic policymaking through the “GREEN” Action Programme, since 1993 (OECD/EAP Task Force, 2011). Under the framework of the programme, the OECD has supported Kazakhstan in the modernization and development of water supply and sanitation (GREEN Action Programme, n.d.). In 2015, the UNDP, in partnership with the UNECE and with financial support from the European Union, launched the Project on Water Management of Kazakhstan. The overall objective of the Project was to promote long-term environmental sustainability and inclusive economic development in Kazakhstan through the building of a modernized environmental governance system (Supporting Kazakhstan’s transition, n.d.). On 22 January 2015, Kazakhstan and the OECD signed a memorandum of understanding that would support economic reforms of Kazakhstan. According to Secretary-General of the OECD Angel Gurría, the spillover effects of Kazakhstan’s reforms will benefit the reform agenda of other Central Asian countries (Somma, 2015). Kazakhstan’s proactive and friendly foreign policy has served not only to advance the country’s national interests, but also to promote its role and image on the international stage.

The European Bank of Reconstruction and Development (EBRD) is one the international organizations supporting Kazakhstan in its attempt to diversify its economy and reduce GHG emissions by developing renewable energy and improving energy efficiency (Strategy for Kazakhstan, 2013). In 2015, financial support from the EBRD to the green projects of Kazakhstan amounted to €364 million, twice the size of that in previous years. In total, the EBRD invested €1.335 billion in 68 green projects across the country, such as the large-scale wind farm built at Yereymentau in 2015 with the support of the Clean Technology

Fund/Climate Investment Funds (It received the prestigious American Chamber of Commerce Environmental and Safety Award); Burnoye solar plant co-financed with the Clean Technology Fund/Climate Investment Funds; Bozoi Gas Storage (Heckman, 2016; International Energy Agency, 2016).

The above discussion has shown that Kazakhstan has sought to exercise international leadership in environmental security by initiating a number of initiatives, particularly the major international event of Astana Expo in 2017. As a country well-endowed with natural resources on the one hand, and facing significant environmental challenges, Kazakhstan helped shape the global governance agenda by acting as a role model.

Conclusion

The paper has shown that Kazakhstan's multi-vector foreign policy has enhanced the country's influence, promoted its reputation in the international society, and contributed to regional and global security. As the de facto representative of Central Asia in the UN Security Council and an active participant in shaping the regional and global agenda of nuclear and environmental issues, Kazakhstan had played the triple roles of model, initiator, and mediator, which are the characteristics of an international leader. As

the discussion above has shown, Kazakhstan has become a successful denuclearization model for countries such as North Korea and Iran with nuclear weapons. By voluntarily renouncing the nuclear arsenal inherited from the USSR and closing the world's second largest nuclear test site, Kazakhstan has set a fine example of successful economic and political development.

Kazakhstan has upheld the global nuclear order by promoting the creation of the Central Asian Nuclear Weapon Free Zone with other regional states, initiating the idea to establish the International Day against Nuclear Tests, establishing the "Abolish Testing, Our Mission" (ATOM) Project to educate the world about the impact of nuclear weapons, drafting a Universal Declaration for a "Nuclear Weapon Free World", and providing a neutral platform for multilateral negotiations (Iranian and Syrian cases). It has also exercised leadership in global environmental issues by encouraging neighboring states to build a sustainable economy, sharing technology and expertise, and promoting global partnership and regional cooperation through the GBPP. Overall, Kazakhstan exemplifies how a middle power could exercise leadership and influence international outcomes by being a role model, initiator, and mediator.

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ҚАЗАҚСТАННЫҢ ХАЛЫҚАРАЛЫҚ ҚАТЫНАСТАРДАҒЫ КӨШБАСШЫЛЫҒЫ: ЯДРОЛЫҚ ЖӘНЕ ЭКОЛОГИЯЛЫҚ ҚАУІПСІЗДІК ЖАҒДАЙЛАРЫ

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ЛИДЕРСТВО КАЗАХСТАНА В МЕЖДУНАРОДНЫХ ОТНОШЕНИЯХ: КЕЙСЫ ЯДЕРНОЙ И ЭКОЛОГИЧЕСКОЙ БЕЗОПАСНОСТИ

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