

# T5.4-P30 The Role of Small States in Monitoring Nuclear Explosions: The Case of Kazakhstan



## Small States and the International System

There is no universally established definition of a “small state”, even though so-called small countries form a majority of the UN members. The “smallness” of a country is not determined by quantitative factors, such as the physical size, population or resources, but rather by qualitative ones, such as strength, influence, vulnerability or reputation. The international system has undergone fundamental changes in the past decades, but, in many respects, major powers still have a decisive effect on issues pertaining to international peace and security, while a combined impact of small states on world affairs remains limited. However, as we observe more emphasis on multilateralism and concert-type arrangements, it is not infrequent that small states take responsible actions to promote their agendas.



For Kazakhstan as a relatively small state in the global arena in terms of political influence, economic power and military might, promoting a nuclear-free world has become its niche and important role in the community of nations. One of independent Kazakhstan’s major achievements for which it is internationally recognized was renouncing the status of a nuclear power, and during 25 years of its independence, the country has earned a reputation of a responsible partner in the issues of regional and international security due to its proactive participation in global nuclear nonproliferation and disarmament efforts. Given present-day multidimensional threats and challenges, continuing its balanced and pragmatic foreign policy is a complicated task for Kazakhstan. However, the country’s strong commitment to multilateral diplomacy, constructive dialogue and cooperative relations provides an effective framework for the success of its peace-promoting activities.

## Kazakhstan and Nuclear Test Ban

The Semipalatinsk Nuclear-Weapon Test Site in Kazakhstan was a primary location for Soviet nuclear testing between 1949 and 1989. In total, 456 nuclear tests, including 340 underground and 116 atmospheric tests, were conducted at Semipalatinsk. The Nevada-Semipalatinsk anti-nuclear public movement was founded in February 1989 with the goal to close the Semipalatinsk testing ground, as well as to put an end to nuclear testing anywhere in the world. The closure of the Semipalatinsk site on August 29, 1991 paved the way for the adoption of the CTBT, and at Kazakhstan’s suggestion this date is now commemorated annually across the world as the International Day against Nuclear Tests. The actual impact of radiation exposure on the local population and the environment continues to be studied and debated, but the general consensus in Kazakhstan is that hundreds of thousands suffered from negative long-term health, humanitarian, environmental, and economic effects of nuclear testing. The state responsible for this damage no longer exists, but the government of Kazakhstan, with assistance from international donors, has taken measures to address health and environmental consequences of nuclear testing.



It is worth noting that as part of the Soviet Union, Kazakhstan was involved in early efforts to prove the effectiveness of seismic monitoring, such as the 1986-1987 Soviet-U.S. confidence building exercise to monitor underground nuclear tests when three “nuclear monitoring” stations were installed in Kazakhstan. The purpose of the experiment sponsored by the U.S. Natural Resources Defense Council and the Soviet Academy of Sciences was to demonstrate that international verification of compliance with an underground test-ban treaty would be technically feasible. The National Nuclear Center of the Republic of Kazakhstan established in May 1992 was tasked, among other things, with “the elimination of nuclear testing consequences in Kazakhstan” and “the monitoring of nuclear testing at the world’s functioning test sites”.

In September 1996, Kazakhstan signed the CTBT and completed the ratification process in December 2001, and the treaty entered into force for Kazakhstan in May 2002. As part of multilateral cooperation programs, unprecedented work has been fulfilled in the Semipalatinsk area to dismantle nuclear weapons testing infrastructure, and international cooperation at the former test site continues to maintain a proper level of safety and security of the sensitive facilities that still remain there.

## Kazakhstan and CTBTO Capacity Building

Being a small state, Kazakhstan, nevertheless, makes a major contribution to the CTBT’s verification capacity building. In November 1997, Kazakhstan and the United States signed the Agreement Concerning the Establishment and Operation of Nuclear Test Seismic Monitoring Stations in Kazakhstan. In August 1998, the two countries fired 0.1 kilotonnes of conventional explosives underground to seal tunnels at the former Semipalatinsk test site. This explosion provided an opportunity to assess the network of seismological stations being set up as part of the International Monitoring System (IMS) to verify the comprehensive test ban by detecting and identifying low-magnitude disturbances.



Kazakhstan has actively participated in the CTBTO on-site inspection field exercises in 1999, 2002, 2005 and 2008 by making available its nuclear expertise and facilities at the former Semipalatinsk test site. The 1999 exercise held with participation of 7 countries was the first in the history of the CTBT, while the Integrated Field Exercise conducted in August-September 2008 was the CTBTO’s largest on-site-inspection exercise, the results of which were of great importance for improving the relevant guidance document.



Kazakhstan’s role in monitoring nuclear explosions is important as it hosts five certified IMS facilities under the Facility Agreement with the CTBTO Preparatory Commission: one primary seismic station (PS23 in Makanshy since 2000), three auxiliary seismic stations (AS057 in Burabai since 2002, AS058 in Kurchatov since 2006 and AS059 in Aktobe since 2005) and one infrasound station (IS31 in Aktobe since 2001). In support of the CTBT and in accordance with the bilateral agreement with the United States two more seismic stations were constructed: Akbulak in West Kazakhstan and Karatau in South Kazakhstan. 11 additional stations have been restored and function as potential IMS facilities. The Kazakhstani stations have proven their effectiveness by providing substantive and reliable data on the nuclear tests conducted by North Korea. It is also noteworthy that Kazakhstan uses monitoring data in civil purposes, e.g., to receive information on seismic activity and ensure safety of mining activities. The Kazakhstan National Data Center in Almaty opened with support from the CTBTO PrepCom and Norway has a network including 132 communication channels which allow automated data collection in real time from the country’s monitoring stations. Since June 2010, the center acts as the regional training center for the relevant personnel of the Central Asian countries focusing on the processing and scientific applications of monitoring/verification data.



Since 2012, Kazakhstan has been promoting the ATOM (Abolish Testing – Our Mission) project, a campaign to build international support for nuclear test ban. Its primary goal is to achieve the CTBT’s early entry into force through raising awareness of and engaging millions of people all over the world. In February 2015, Kazakhstan and Japan were unanimously nominated to lead international efforts for the entry into force of the CTBT for 2015-2017. In this capacity, the two countries co-chaired the 9th CTBT Article XIV Conference which took place in September 2015 in New York. For two years, Kazakhstan, along with Japan, has been very proactive in coordinating international efforts towards the treaty’s entry into force. In August 2016, Almaty hosted the IX International Conference titled Monitoring of Nuclear Tests and Their Consequences, aimed at improving the CTBT verification methods.



## Conclusion

The role of small states in international relations is limited due to considerable power disparities that exist in world politics. However, this does not imply that small states do not matter in the international environment and cannot make their voice heard in issues of global importance. Even if international affairs are dominated by major powers, there is still significant space for small states to influence the course of international events. This becomes particularly relevant at present, when the support of small countries becomes a vital resource for any larger power. The case of Kazakhstan clearly demonstrates that a country’s perceived limited political, economic or military weight cannot prevent it from pursuing a bold agenda for achieving a safer world. Kazakhstan’s election as a non-permanent member of the United Nations Security Council for a two-year term starting January 2017 provides additional opportunities for expanding the country’s peaceful initiatives.

