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## **The Water Resources Management in Central Asia – The Political and Economic Contradictions as a Source of Inefficiency**

### **The Water Resources Management in Central Asia – The Political and Economic Contradictions as a Source of Inefficiency**

#### **Abstract**

The issue of access to water in Central Asia has a centuries-old history and it is an exceptionally complex issue. The Central Asian republics, for twenty – six years of their sovereignty, have not been able to create an effective water resource management system. This state of affairs causes constant disputes and controversies, as well as various threats – social, economic and environmental.

The article explores the genesis of the problem, especially from the period of Soviet power, when huge irrigation system was created and based on two rivers: the Syr Darya and the Amu Darya. These powerful investments combined with extensive farming are the root causes of today's problems.

The countries of the region tried to regulate the issue of managing the water resources by signing regional agreements in this matter, the most important are these signed in: Almaty, Kyzyl–Orda and Ashgabat. Bilateral or tripartite agreements between states were also concluded. Unfortunately, most of them were ineffective, contractual provisions remained only in writing. One could say that the cooperation between Kazakhstan and Kyrgyzstan on the rivers Chu and Talas is the only positive example.

The contradictory economic and political interests of Central Asian countries were recognized as the main source of the water management system inefficiency.

Relations between the states are often suspicious and fueled by nationalism. Central Asia is a region that is not internally integrated, in which it is difficult to develop inter-state agreements. The author concludes that the shift in Uzbekistan's foreign policy may support developing a new regional compromise in the long term perspective.

*Keywords:* Central Asia, water resources, political and economic conflicts

## **Управление водными ресурсами в Центральной Азии – политические и экономические противоречия как источник неэффективности**

### **Аннотация**

Вопрос доступа к воде в Центральной Азии имеет многовековую историю, является чрезвычайно сложным. Центральноазиатские республики в течение двадцати шести лет своего суверенитета не смогли создать эффективную систему управления водными ресурсами. Такая ситуация вызывает постоянные споры и конфликты, а также создает различные угрозы – социальные, экономические и экологические.

В статье исследуется история проблемы, в частности период советской власти, когда была создана огромная ирригационная система, основанная на двух реках: Сырдарья и Амударья. Мощные инвестиции в сочетании с обширным сельским хозяйством являются коренными причинами сегодняшних проблем.

Страны региона пытались урегулировать вопрос управления водными ресурсами, разработали региональные соглашения по этому вопросу, наиболее важные из которых подписаны в Алматы, Кызыл-Орде и Ашхабаде. Были также заключены двусторонние или трехсторонние соглашения между государствами. К сожалению, большинство из них были неэффективными, положения договоров остались только в письменной форме. Можно сказать, что сотрудничество между Казахстаном и Кыргызстаном на реках Чу и Талас является единственным положительным примером.

Противоречивые экономические и политические интересы центральноазиатских стран были признаны основным источником неэффективности системы управления водными ресурсами. В отношении государств часто проявляется подозрительность и национализм. Центральная Азия – это регион, который не является внутренне интегрированным и в котором трудно разработать межгосударственные соглашения. По мнению автора, изменения во внешней политике Узбекистана может способствовать развитию нового регионального компромисса в долгосрочной перспективе.

*Ключевые слова:* Центральная Азия, водные ресурсы, политические и экономические конфликты

The problem of access to water in Central Asia is an extremely complex issue, possible to analyse on many levels and in many respects. After twenty – six years since Central Asian republics gained their sovereignty, transboundary water management is still inefficient. This state of affairs implies different kinds of threats – social, economic and ecological. The issue of access to water in Central Asia is still conflicting, causing disputes both at the local level, often at the border, and also in contacts between the elites of the authorities, at the inter-state level.

Since the 1990s, numerous external institutions have been involved in solving this problem, but engagement was often not very effective. The following article focuses only on cooperation between the states of the region and the selected agreements of an interstate nature. Additionally, the issue of an inefficient water resources management is closely linked with the process of regionalization. Central Asia is still a non-integrated region without a full – developed community of interests, each of the countries conducts an independent and often a contradictory policy. The paper begins with presenting the short history of the problem, the selected agreements and their legal defects are presented in the next part, while the last part conducts the analysis of conflicting political and economic interests of the countries in the region.

The problem of access to water in Central Asia has a centuries-old history. Almost all rulers were building irrigation canals and systems. Such works were conducted by the Persian Achaemenid dynasty, already in the 6th century BC. Subsequently, many other nations continued to do so, it is worth mentioning the great enterprises in the Kingdom of Sogdiana or the activities of the Samanid dynasty. Irrigation machinery was used as an instrument of pressure on neighboring nations to deprive them of the access to water, dams on the rivers were built, locks were closed or channels were destroyed. On the other hand, one could present the positive examples, agreements were successfully developed already back then and a water management system based on a cooperation was developed (Cieślowska, Makowska, 2012, pp. 29–37).

However, in order to elucidate the essence of contemporary problems better, we should look at a bit more recent history – the period of Russian and then Soviet rule. In the nineteenth century, the tsarist Russia was gradually colonizing Central Asia, in 1867 the General-Governorship of Tur-

kestan was established. The Russians have already been developing cotton cultivation, turning Central Asia into a resource base (Łukawski, 1996, pp. 286). During the Civil War in the United States an additional impulse came. The American raw material disappeared from the markets, therefore a “cotton fever” broke out in Central Asia, hundreds of new plantations were created, buyers and entrepreneurs from Moscow, St. Petersburg and even Lodz were coming here. In 1877, the tsarist administration issued the first act on this matter, “The provisional regulations on irrigation in the Turkestan Governorate”. It would be followed by further regulations, for instance, the Department of Agriculture and State Ownership was created, which among other things dealt with irrigation issues (Cieślewska, Makowska, 2012, p. 47–52).

The crucial events for this problem occurred during the Soviet period. In 1929, the Soviets launched one of the largest irrigation projects not only in the history of the USSR, but even in the entire world – the Caracum Canal. Then they deal with the Vaksh River valley, and in 1939 the Great Fergana Canal, named after Stalin, is opened. After the Second World War, they were continuing the plan to develop the food and a cotton facilities, for instance through the irrigation of the Hunger Steppe. Within thirty years, in the desert area, five cities and several dozen collective farms were created, as well as the complicated irrigation structure – dams, canals and artificial reservoirs (Cieślewska, Makowska, 2012, pp. 50–62).

These activities really favored the development of crops, but paradoxically they also became the cause of today’s economic, political and ecological problems. As described above, the development of irrigation systems and cotton plantations have caused a number of ecological problems in the region, including one of the largest ecological disasters in the modern world, namely the drying up of the Aral Sea (Cieślewska, Makowska, 2012, pp. 73–78).

Without going into details of the irrigation system created by the Soviet Russia, it should be noted that, in particular, it was based on two largest rivers of the region – Syr Darya and Amu Darya and their tributaries. An extensive economy caused that the stream of water in the rivers was still decreasing, as can be seen in the example of Amu Darya. Until a few decades ago, this river was flowing into the Aral Sea and formed a vast delta at

its banks. Just like the lake, the river gradually dried out and now it flows into the sands of the desert.

The Soviets created the system based on a cooperation of the union republics. Those located in the upper reaches of the rivers – the Tajik and the Kyrgyz – were responsible for the maintenance of irrigation equipment, collecting water supplies and releasing it at the right moment. The republics from the lower reaches of the rivers – the Kazakh, the Turkmen, and above all the Uzbek – could thus develop agriculture, mainly cultivating cotton. In return, they provided the Kyrgyz and the Tajik republics with the energetic resources, which they had abundant amounts, while the republics from the upper reaches of the rivers were almost devoid of them. If we disregard ecological aspects, the idea of such barter exchange between the republics worked quite well.

The system operated as long as there was an empire. After the Central Asian countries acquired independence this arrangement, which inherently required cooperation, was increasingly the cause of disputes and conflicts. The upstream countries deprived of energy resources, tried to use other potential energy sources and began to expand their hydropower system, thus preserving more and more a water. These actions led to the problems in the downstream countries and, as a consequence, to the diplomatic and the social tensions.

The media even began to predict that will soon come to interstate war in the region because of the dwindling water resources. It seems, such forecasts are greatly overstated<sup>1</sup>. However, this does not change the fact that managing the water resources is a problem of an high importance for the security of the entire region. In the scientific literature, analysis devoted to the Central Asian disputes has begun to adapt the concepts known from other regions, where water reserves are shrinking (for instance: Israel–Jordan, India–Pakistan, India–Bangladesh). Central Asia started to be examined through the prism of a hydropolitics or a hydro-hegemony concepts<sup>2</sup>. Local conflicts were noticed, especially visible in the Fergana Valley

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<sup>1</sup> In fact, it is not true that there is a deficit of water resources in the region (Khazanova, 2017, p. 162; Varis, Rahaman, 2008)

<sup>2</sup> As the Wegerich points out, in fact in Central Asia there are only countries aspiring to this role, but in reality: “no clear form of hydro-hegemony has been established. Control over the flows instead seems ‘contested’. The basin is rather characterized by different

(for further details see: Cieslewska, Makowska, 2012, p. 105–112), as well as disputes at the inter-state level. The most famous ones concerned the construction of the Rogun dam on the Vakhsh river in Tajikistan and the Kambar-Ata 1 on the Naryn river in Kyrgyzstan (Menga, 2015; Repetowicz, 2016). Uzbekistan, under the leadership of Islam Karimov, was convinced of the negative impact which these projects would induce on the water management. His opposition was manifested in withholding gas supplies to Kyrgyzstan and Tajikistan, suspension of the railway traffic (parts for the construction of the Rogun dam – Tajiks exported from Iran), and finally it took a very sharp form, the statement that could be treated as a threat of war<sup>3</sup>.

Actions aimed at creating an effective water resources management system were undertaken at both regional and bilateral levels. A part of the accepted documents was legally binding, and a part of them was merely political agreements. It is worth mentioning some of the most important accords. Already in 1992, the first and probably the most important agreement was signed in Almaty – The Agreement on Cooperation in the Field of Joint Water Resources Management and Conservation of Interstate Sources. It confirmed the principles of the water resources division, agreed at the times of the USSR. The agreement assumed an integrated approach to managing resources in the region and treating them as the common good of all the Central Asian countries (Agreement, 1992).

The accord established an institutional network, the Interstate Commission for Water Coordination of Central Asia was created. Article 8 of the Agreement defines its tasks and includes: determination of water management policy in the region, elaboration of its trends with regard for the needs of all branches of national economy, complex and rational use of water resources; long-term program of water supply in the region and measures for its implementation; elaboration and approval of water use limits,

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*riparian states engaged in strategies of resource capture, by increasing their water demand without renegotiating the official agreements.” (Wegerich, 2008a, p. 85)*

<sup>3</sup> In the latter case, it is about statement of Islam Karimov, who in September 2012 said, that: „Water resources could become a problem in the future that could escalate tensions not only in our region, but on every continent (...) I won't name specific countries, but all of this could deteriorate to the point where not just serious confrontation, but even wars could be the result”. (Reuters, 2012)

annually for each Republic and the region on the whole; corresponding operations schedule for water reservoirs, their correction by specified forecasts depending on actual water availability and the water management situation (Agreement, 1992). Also the institutions created in the times of the USSR were preserved, and became the executive bodies of the Commission, namely: the Amu Darya and the Syr Darya basin valley organizations. They were appointed to manage all water facilities and devices built on the both rivers. Formally, the Commission also has an authority to monitor the use of limits by the States. In addition, it has the competence to remove sewage along rivers and ensures that the right amount of water feeds the pool of the Aral Sea (Kaczmarek, Kardaś, 2012; pp. 211–218; Rahaman, 2012, pp. 481–486).

In the context of the latter reservoir, one should also mention another regional agreement. In 1993, in Kyzyl-Orda (in Kazakhstan), countries signed the Agreement on joint activities in addressing the Aral Sea and the zone around the Sea crisis, improving of the Environment and Ensuring the Social and Economic Development of the Aral Sea Region Fund. Six years later, in Ashgabat, the Agreement about the status of IFAS and its organizations was adopted. The main objectives of the Fund include: rational use of limited resources of land and water, maintaining adequate water quality in rivers, lakes and underground sources, guaranteeing water supplies to the Aral Sea in a size that will help maintain a lowered but stable level. There are also ecological goals among them, for instance: balancing activities that disrupt the situation in regional ecosystems in the region or activities for the protection of migratory species. However, the renewal of water resources in the Aral Sea region based on jointly developed programs is the most prominent goal (Agreement, 1993).

The regional agreements described above have not brought the expected results, which will be discussed below. In this situation, particular countries sought other solutions and signed bilateral or tripartite agreements. An example is the Uzbek–Turkmen Agreement on Cooperation in Water Management Issues, signed in 1996, which aim was to regulate water distribution in the Lower Amu Darya. Despite the existence of interstate institutions established under the Almaty and Ashgabat agreements, Uzbekistan and Turkmenistan decided to set water limits only between themselves, thus creating a separate legal regime in the region. The agreement is still in

force and officially both countries are supporting it, but over the years its implementation has left much to be desired. Uzbek politicians have repeatedly accused Ashgabat of charging too much water. Tashkent referred to the population potential, the size of its territory, and claimed that the division was unfair. In turn, the Turkmen argued that the amount of water which they receive is insufficient and planned to build new artificial reservoirs (Kaczmarek, Kardaś, 2012, pp. 188–189).

The Uzbek–Turkmen agreement concerned the resources of the Amu Darya, but also the resources of the Syr Darya were regulated by a separate agreement. In 1996 in Tashkent, Kyrgyzstan, Kazakhstan and Uzbekistan signed the Agreement on the Use of Fuel and Water Resources, Construction and Operation of Gas Pipelines in Central Asian Region. Accord indicated the need to elaborate a compromise, reconcile the demands of hydropower with the needs of irrigation systems. Two years later, the same three countries have signed the Agreement on the use of Water and Energy Resources of the Syr Darya Basin. According to the contract, the surplus amount of electricity from the Naryn–Syrdarian Hydroelectric Power Station (in Kyrgyzstan) should be transferred to Uzbekistan and Kazakhstan. In exchange, Kyrgyzstan would receive gas supplies from Uzbekistan and coal supplies from Kazakhstan. Compensation concerned not only surplus energy, but also water resources in reservoirs. The agreement provided for the creation of annual special agreements that should determine the water limits. Indeed, in the years 1993–2003, such accords were successfully developed, but their implementation left much to be desired (Kaczmarek, Kardaś, 2012, pp. 205–208).

In comparison to the aforementioned agreements, the Kyrgyz–Kazakh cooperation is much more successful, almost model-oriented (Wegerich, 2008b). In 2000, the Agreement on the Use of Water Management Facilities of Intergovernmental Status on the Rivers Chu and Talas was signed. Both rivers have their origin in Kyrgyzstan, there are also dams, water reservoirs and canals. According to the agreement, Kyrgyzstan was entitled to compensation in exchange for ensuring safe operation of water installations. Additionally, the Commission of the Republic of Kazakhstan and the Kyrgyz Republic for the use of water facilities on the Chu and Talas rivers was established. Members of this commission are appointed by the governments of both countries. It operates on the basis of plenary meetings,

not less than twice a year, and there are also working groups and a secretariat. The Commission determines the water limits and the amount of necessary expenses for the operation and the maintenance of equipment (Khamzayeva, 2009, p. 14).

Kyrgyz–Kazakh cooperation is presumably the only example of a well-functioning water management system in Central Asia. Therefore, why do all others not fulfil their tasks?

In terms of formal and legal aspects, it should be pointed out that others agreements are frequently outdated, and still based on Soviet solutions, whereby deviate from the contemporary challenges and tasks (Khasanova, 2016, pp. 161:). Repeatedly, the content of contracts does not provide a clear and precise scope of duties. Additionally, they do not provide criteria on the basis of which the contract implementation could be valued, systems are lacking provisions for monitoring the use of water resources. (Kaczmarek, Kardaś, 2012, pp. 226–231).

The countries of the region are trying to introduce the IWRM principles into their agreements, which has already been used in other regions of the world. It should be emphasized, however, that the degree of implementation of these principles is still low, some regulations remain only in writing (Rahaman, 2012). Another problem is the fact that not all of the five republics have joined to the most important international cross-border water management conventions. For instance, Kazakhstan, Uzbekistan and Turkmenistan have ratified the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (United Nations Treaty Collection, 2017). On the other hand, only Uzbekistan joined the Convention on the Law of the Non-Navigational Uses of International Watercourses (United Nations Treaty Collection, 2017a).

From the institutional point of view, both the Interstate Commission for Water Coordination and the Fund for Saving the Aral Sea have been widely criticized. Firstly, it should be noted that both structures are accused of the insufficient transparency.

Additionally, the ICWC is criticized for its over-focus on the agricultural economy and the lack of consideration of ecological or energy aspects. The politicians of the upstream countries take into consideration the bias of the institutions and securing only the interests of the downstream countries (Cieślowska, Makowska, 2012, pp.). Most of the Commission insti-

tutional bodies are located in the Uzbekistan capital, Tashkent and for this reason Tajikistan and Kyrgyzstan accuse ICWC of partiality in making decisions (Kaczmarek, Kardaś, 2012, pp.). Finally, attention is also drawn to another negative aspect of the Commission's activities, namely the lack of stakeholder's involvement in the work of the institution. The decision-making process is centralized and is based only on the involvement of state entities (Rahaman, 2012, pp. 488–489).

Regarding the International Fund, it actually worked out further Aral Sea Basin Programs, but experts very often criticized its activities and pointed its faults. These were very specific allegations, such as the lack of the reliable data on the volume of flows in the main rivers of the region, but also the principled ones regarding the lack of a comprehensive water protection program that should also take into an account the needs of agriculture and energy. The list of objections can be extended and the effectiveness of the Fund's operation is questionable (Cieślewska, Makowska, 2012, pp. 102–104). Similarly to the ICWC, the countries that joined the IFAS accused each other of bias in making decisions, some of them did not make regular payments to the Fund (Kaczmarek, Kardaś, 2012, pp. 217–218).

Attention should be drawn to one more aspect concerning both institutions. Some authors emphasize that Afghanistan should also be involved in the water management process in addition to the five countries of Central Asia. As in the case of security problems (terrorist threats, drug trafficking), the participation of Afghanistan seems to be indispensable. The state supplies about 10% of the water resources to the Aral Sea basin, and one of the two major rivers, the Amu Darya begins its run in Afghanistan (Rahaman, 2012, p. 489).

Without going further into the legal and institutional assessments, it should be pointed out that the primary, main reason for not creating an effective water management system so far is actually the conflicting economic and political interests of the region's states. The economic ones can be simplified, but in a fairly clear way, described. Kyrgyzstan and Tajikistan are the poorest countries in the region that are looking for their chance to develop hydro energy. The energy produced in this way would satisfy not only the needs of its own citizens, but it would also be a chance for profitable export to Iran, Pakistan or even India (Repetowicz, 2016). In this context, much was said about the CASA project (Central Asia–South

Asia) , which assumed the construction of energy transmission lines to the southern Asia. Uzbekistan and Turkmenistan are interested in the development of agriculture, especially cotton plantations. “White gold” in the export structure of these countries is still a very important position. Kazakhstan is an economic leader of the region, but has built its position on enormous resources of an oil and a gas, not a cotton. The regional leader is interested in access to water only in the border regions and in the vicinity of the Aral Sea. Kazakhstan, supported by the World Bank, built the Kokaral dam, which will significantly increase the water level in the northern part of the lake (Blant, 2015).

Water management in the region can be viewed from a broader perspective, not only the economic interests. Central Asia in the scientific literature is often presented as a region. However, it should be noticed that it is still a region defined from the outside (Kavalski E., 2010, pp. 5–6), without a developed regional identity. Specialists of the subject often emphasize the fact that it is rather five independent states, each of them conducts its own policy and often has completely different priorities than neighbours (Kourmanova, 2017). In this context, the remarks of F. Sojamo, who links the ineffective water management system with the lack of regional connections seems accurate: “instead of forming a strong union, the states are today yarning to break free from regional dependencies” (Sojamo, 2008, p. 85).

Mutual distrust stimulated by nationalist policy, the use of hydro energy projects or natural resources as domestic policy instruments – hinders the building of regional agreements. This kind of policy was particularly noticeable in the case of Turkmenistan (during the Saparmurat Niyazov rule) or Uzbekistan (during the Islom Karimov rule). It prompted that the states reached a consensus only formally, however in fact, they were failing to implement the accepted commitments. We can recall, aforementioned, disputes between Uzbek and Turkmen regarding an implementation of the agreement on the distribution of water on the Amu Darya. In addition, the relationship between countries are also diminished by the project of construction “The Golden Century Lake”. Gurbanguly Berdymuchammedov, president of Turkeministan, has been planning to build this huge reservoir in the middle of the Kara–Kum desert for years. Uzbek politicians argue that this project will not improve the situation, but on contrary, it will only

contribute to the significant reduction in the level of water in the Amu Darya (ICG Asia Report, 2002, pp. 25–26).

The history of the Rogun dam is also very revealing. Undoubtedly, this is a fundamental issue for the Tajik government, to confirm this thesis, one can quote the words of E. Rakhmon, who in 2010 stated that: “Rogun is our national idea. (...) Rogun is a symbol of life in Tajik state!” (Menga, 2015, pp. 489). Failed attempts to raise funds for the construction of one of the largest hydroelectric plants in the world led to the fact that the president of Tajikistan even organized a special nationwide fundraising for this purpose (Khasanova, 2017, pp. 163). Uzbekistan, during the rule of Islom Karimov, reacted to this goal with sanctions, withholding transport, even gave the statement that could be treated as a military threat.

The solution to the problem of managing water resources in Central Asia requires the political compromise and the reconciliation of economic interests. In this regard, positive signals are arising from the new way of conducting foreign policy by Uzbekistan, which during the rule of Islom Karimov continued to contest subsequent agreements. The new president, Shavkat Mirziyoyev, who took office in September 2016, does not repeat the words of his predecessor, it seems that the dispute over the construction of the Rogun dam have went down. Moreover, another controversial project mentioned above, namely the Kambar–Ata 1 hydroelectric power station in Kyrgyzstan, even obtained the consent of the Uzbek authorities. The change of course in foreign policy is confirmed by Mirziyoyev’s statements, as well as his activities. The integration in Central Asia, both in the sphere of security and in economy is the priority of the new government (Tolipov, 2017).

The fact, that Shavkat Mirziyoyev on his, first, presidential visit went to neighboring Turkmenistan, instead to Russia or China was very telling. Presidents, among other things, agreed the necessity to cooperation in the sphere of energy and transport. In addition, Mirziyoyev, shortly after, visited the other four Central Asian republics, with each of them signing new agreements. It is worth mentioning the results of talks with the Tajik and the Kyrgyz governments. Undoubtedly, the course of borders in the disputed areas (the process of demarcation has still not ended, despite the passage of 26 years since the acquisition of sovereignty) was a problematic issue in relations with these countries. The visits resulted in preliminary agree-

ements and meetings of working groups on delimitation and demarcation of borders (Leonard, 2017). Furthermore, a number of infrastructure and transport projects were initiated, including opening, first time in history, a direct flight between Tashkent and Dushanbe (Lemon, 2016).

Furthermore, the statements of Abdulaziz Kamilov, the new Uzbek minister of foreign affairs in the context of regionalization and water management are interesting. For instance at August 11<sup>th</sup> in Tashkent, he stated that: “any major regional projects in the spheres of transport, communication and energy cannot be realized without active interaction with the countries of the region, without ensuring a high level of their integration” (Ogutcu, 2017). During a press conference in Tashkent, in April 2017, referring to a new agreement on water resources management (prepared by UNRCCA) expressed hope that the governments of Central Asia: “will be able to start a mutually interested dialogue” (Casey, 2017).

All these activities cannot lead to the straightforward conclusion that henceforth the process of water resources management in the region will significantly improve. The shift in Uzbekistan’s foreign policy, which frequently contested the agreements, may support developing a compromise in the long term perspective. Albeit foreign policy in Central Asia will probably remain unpredictable and full of distrust over neighbours.

To confirm this thesis, one can adduce an up to date example. Unexpectedly, the relations between Kyrgyzstan and Kazakhstan have deteriorated dramatically. At the end of 2017, presidential elections took place in Kyrgyzstan. Just before them, the President of Kazakhstan, Nursultan Nazarbayev, met with one of the opposition candidates, Omurbek Babanov. This led to official protest of the Kyrgyz Ministry of Foreign Affairs, which treated the meeting as interference into the national elections, soon after Kyrgyzstan tightened controls at the borders, which led to, among other things, economic problems for borderlands residents. Admittedly, the election was won by Sooronbay Jeenbekov supported by the ruling party, but relations remained tense (Eurasianet, 2017).

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