ҒТАХР
11.25.40

https://doi.org/ 10.52536/2788-5860.2024-1.01

ZhassulanOrynbayev[1], Nurlan Muminov[2], Sinan Ozbek[3]
[1] PhD student of the Department of Political Science,
L.N. Gumilev Eurasian National University,
(Astana, Kazakhstan)
e-mail: zhassulan.orynbayev@gmail.com
[2] Research Associate at the Eurasian Research Institute, Khoja Akhmet Yassawi International Kazakh-Turkish University
(Almaty, Kazakhstan)
e-mail: n.muminov@ayu.edu.kz
[3] Professor of KocaeliUniversity,
(Izmit, Turkey)
e-mail: sozbek@kocaeili.edu.tr

WATER SECURITY IN THE KYRGYZ REPUBLIC: POST-SOVIET CHALLENGES AND REGIONAL DYNAMICS

Abstract. This article discusses the utilization of water resources in the Kyrgyz Republic following the dissolution of the USSR in 1991. It examines water security, reserves, and the potential of water resources. Additionally, it highlights the significance of water resources in the economy and politics of the Kyrgyz Republic and its relations with Central Asian states. The article conducts an analysis of tensions with neighboring countries over water resources. Furthermore, it evaluates the importance, advantages, and potential challenges of the CASA-1000 project. Legal regulations governing water resources in the Kyrgyz Republic and their economic benefits and role in international relations are also discussed.

Key words: *water security, water resources, Kyrgyz Republic, Central Asia.*

Жасұлан Орынбаев, Нұрлан Муминов, Синан Өзбек

ҚЫРҒЫЗ РЕСПУБЛИКАСЫНДАҒЫ СУ ҚАУІПСІЗДІГІ: ПОСТКЕҢЕСТІК СЫН-ҚАТЕРЛЕР ЖӘНЕ АЙМАҚТЫҚ ДИНАМИКА

Аңдатпа. Мақалада Қырғыз Республикасының 1991 жыл КСРО ыдырағаннан кейінгі су ресурстарын пайдалану ерекшеліктері сипатталады. Су қауіпсіздігі, су ресурстарының қоры мен әлеуеті қарастырылған. Сонымен қатар су ресурстарының Қырғыз Республикасыныңэкономикасыменсаясатындағымаңыздылығы,Орталық Азия мемлекеттерімен қарым-қатынасы кейстер арқылы көрсетілген. Көрші елдерімен су ресурстары негізінде орын алған шиеленістерге талдаулар жасалынған. CASA-1000 жобасының маңыздылығы, пайдасы мен туындауы мүмкін қиындықтары да талданып көрсетілген. Мақала

су ресурстарының Қырғыз Республикасындағы құқықтық реттелуі, экономикалық пайдасы мен халықаралық қатынастағы рөлі сипатталған.
Түйін сөздер: *су қауіпсіздігі, су ресурстары, Қырғыз Республикасы, Орталық Азия.*

Жасулан Орынбаев, Нурлан Муминов, Синан Озбек

ВОДНАЯ БЕЗОПАСНОСТЬ В КЫРГЫЗСКОЙ РЕСПУБЛИКЕ: ПОСТСОВЕТСКИЕ ВЫЗОВЫ И РЕГИОНАЛЬНАЯ ДИНАМИКА

Аннотация. В статье описаны особенности использования водных ресурсов Кыргызской Республики после распада СССР в 1991 году. Рассмотрены водная безопасность, запасы и потенциал водных ресурсов. В то же время на примерах показано значение водных ресурсов в экономике и политике Кыргызской Республики, отношениях с государствами Центральной Азии. Проведен анализ напряженности с соседними странами по водным ресурсам. Также анализируются важность, преимущества и потенциальные проблемы проекта CASA-1000. В статье описывается правовое регулирование водных ресурсов в Кыргызской Республике, экономическая выгода и роль в международных отношениях.
Ключевые слова: *водная безопасность, водные ресурсы, Кыргызская Республика, Центральная Азия.*

Introduction

Central Asia, spanning from the Caspian Sea to the western border of China, is a region of geopolitical significance, bordered by the Russian Federation to the north and Iran, Afghanistan, and the People's Republic of China to the south. Comprising Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan, and Tajikistan, the region underwent profound transformations following the dissolution of the Soviet Union in 1991 [1].

Before 1992, these Central Asian nations were integral parts of the USSR, with closely intertwined economies. During this period, tensions regarding the utilization of transboundary waters were minimal, owing to a system of compensation for damages and losses established during the Soviet era, particularly in Kyrgyzstan and Tajikistan. This system facilitated the exchange of essential resources such as oil, gas, coal, and agricultural products for electricity and agricultural goods, addressing shortages experienced during the winter months [2]. Notably, Kyrgyzstan emerged as one of the region's wealthiest nations in terms of water resources, uniquely relying entirely on internally sourced water.

In today's geopolitical landscape, the management and utilization of water resources in Central Asia remain a topic of significant importance. As the region continues to navigate political, economic, and environmental challenges, understanding the dynamics of water security and its implications for regional stability and development is paramount. This paper explores the role of water resources, particularly in Kyrgyzstan, shedding light on their economic

significance, political leverage, and implications for regional cooperation and conflict resolution.

Methods

The research methodology encompasses a comprehensive approach, incorporating case study analysis, event analysis, and comparative analysis techniques. It relies on a synthesis of findings from both domestic and international scholars who have extensively investigated water-related issues. Additionally, it leverages a diverse array of online resources to augment the existing body of knowledge. This multifaceted approach ensures a thorough examination of the subject matter from various perspectives, facilitating a deeper understanding of the complexities inherent in water resource management and policy formulation.

Results

The Kyrgyz Republic, unofficially known as Kyrgyzstan, declared its independence on August 31, 1991, situating itself in the northeast of Central Asia and sharing borders with Kazakhstan, Uzbekistan, Tajikistan, and the People's Republic of China [3]. Covering an area of 198.5 thousand km3, Kyrgyzstan boasts an intricate network of over 2040 streams, rivers, and flowing waters, with the Naryn-Syr Darya rivers contributing 0.5% of water resources in Kyrgyzstan, 7% in Tajikistan, 50.5% in Uzbekistan, and 42% in Kazakhstan. Additionally, 45% of Central Asia's glaciers are found within Kyrgyzstan's territory, accounting for 40% of the region's water resources, with the remaining 60% originating from Tajikistan [4]. Furthermore, the distribution of the Shu-Talas rivers' flow is equally divided between Kyrgyzstan and Kazakhstan [5].

The water resources of the Kyrgyz Republic primarily originate in the upper part of the basins, as depicted in the table below.

Table 1. **Water basins of Kyrgyzstan [6].**

No	Water basins of Kyrgyzstan	Total catchment area, square km.
1.	Syrdarya	219000
2.	Naryn	59900
3.	Kara Darya	30100
4.	Chatkal	7110
5.	Dispute	52700
6.	Noise	22491
7.	Lake Issyk-Kul	11233

According to experts, the total stock of water resources of Kyrgyzstan is 2458 km3. In addition, the total volume of water resources that can be restored is 46.5 km3. is evaluated [7].

Table 2. **Division of the Water Resources Fund of Kyrgyzstan [4].**

Distribution of water resources fund of Kyrgyzstan (%)		
1.	In glaciers	650 km3. (26.4%)
2.	In the lakes	1745 km3. (71%)
3.	In underground waters	13 km3. (0.5%)
4.	In the rivers	44.5 - 51.9 km3. (2%)

In terms of regional hydrography, the river system of the Kyrgyz Republic primarily belongs to the Aral Sea basin (76.5%), followed by the Tarim River basin (12.4%), the Issyk-Kul internal basin (10.8%), and the Balkhash River basin (0.3%) [4].

Legal Framework for Water Resource Management. The protection of water resources in the Kyrgyz Republic is enshrined in its constitution. Article 4 of Chapter 1 of the 1993 Constitution of the Kyrgyz Republic states: "The land of the Kyrgyz Republic, its interior, air space, water, forests, plants and animals, and other natural resources are used as the basis of the life and activities of the Kyrgyz people and are under the special protection of the state" [8]. In Chapter 2, Article 16 of the constitution, re-adopted in 2021, it is stated: "The land, its interior, air space, waters, forests, pastures, flora and fauna, and other natural resources are the exclusive property of the Kyrgyz Republic" [9]. The difference between the two constitutions lies in the ownership of natural resources, where the old law considers them the property of the people, while the new one elevates the state to a hegemonic level, granting it the authority to protect, regulate, and determine the fate of natural resources when necessary.

Currently, the legal framework governing water affairs in the Kyrgyz Republic includes the following documents, in addition to the constitution:

• Provisions of the Constitution of the Kyrgyz Republic;

• Legislative acts within the jurisdiction of the JogorkuKenesh (Parliament of Kyrgyzstan), including their development, implementation, and oversight;

• Decrees issued by the President of the Kyrgyz Republic on water-related matters;

• Regulations, including decrees, orders, and regulations approved by the Prime Minister of the Kyrgyz Republic;

• Departmental and territorial regulations, including orders and directives issued by ministries, department heads, and local state administrations, as well as standards, guidelines, norms, rules, and other documents governing various aspects of water affairs [10].

Water as a Political Lever. In their 1998 book "Security: A New Basis for Analysis," Barry Busen, Ole Weaver, and Jaap de Wilde present a thesis on water security in their chapter on environmental security. They assert that "the upstream state or states control water quality and quantity by using water resources as a tool to influence its neighbors" [11]. The degree of influence exerted by coastal states plays a crucial role in water resource management. However, control over water resources is not solely determined by the construction of hydraulic structures; other factors are also significant. Typically, upstream states utilize water primarily

for generating electricity, while downstream states require electricity to access water resources [12].

The Kyrgyz Republic strategically leverages its water resources, particularly transboundary river waters, as a means of exerting political influence on neighboring states. It is worth acknowledging that Kyrgyzstan typically resorts to water as a measure of last resort amid political tensions. An illustrative example of this occurred when Kyrgyzstan closed the Kirov reservoir, which feeds into the Shu and Talas rivers, in response to Kazakhstan's closure of border customs posts following the April 2010 coup d'etat in Kyrgyzstan. Although Kyrgyzstan justified this action as necessary for reservoir maintenance [13], the underlying motivations are evident. The closure of the border severely impacted Kyrgyzstan's economy, resulting in an estimated loss of $1 billion in profit over 40 days, as 80% of Kyrgyz goods are exported [14]. Given Kazakhstan's crucial role as a transit route to Europe for Kyrgyzstan, water is poised to become a significant bargaining chip in future political maneuvering. For instance, in late April 2022, Kyrgyz Deputy Aibek Altynbekov proposed halting water flow to Kazakhstan in response to Kazakhstan's economic blockade, prompted by long queues of Kyrgyz trucks at border crossings between the two countries. Altynbekov unveiled this proposal during a meeting of the parliament's budget and fiscal policy committee [15].

On August 22, 2022, Kazakhstan revised Minister of Energy Order No. 361 of May 19, 2015, titled "Setting Maximum Prices for Oil Products Sold in Retail Subject to State Regulation." The amendments include the following adjustments:

Maximum retail prices for oil products at regular gas stations subject to state regulation, inclusive of value-added tax, are as follows:

Ai-80 gasoline: 89 tenges per liter.

Ai-92 and Ai-93 gasoline:

Kostanay and North Kazakhstan regions: 187 tenge per liter.

Astana, Almaty, Shymkent, Akmola, Aktobe, East Kazakhstan, West Kazakhstan, Almaty, Atyrau, Zhambyl, Karaganda, Kyzylorda, Pavlodar, Turkestan, Mangistau, Abay, Zhetysu, and Ulytau regions: 182 tenge per liter.

Diesel fuel (summer and off-season):

General: 450 tenge per liter.

Akmola, Aktobe, East Kazakhstan, West Kazakhstan, Kostanay, North Kazakhstan, and Abai regions:

With a Kazakhstani driver's license, up to 100 liters per day: 260 tenges per liter.

For cargo, special, and specialized vehicles, and buses, with a Kazakhstani vehicle registration certificate, up to 300 liters per day: 260 tenges per liter.

Astana, Almaty, Shymkent, Almaty, Atyrau, Zhambyl, Karaganda, Kyzylorda, Pavlodar, Turkestan, Mangistau, Zhetysu, and Ulytau regions:

With a Kazakhstani driver's license, up to 100 liters per day: 230 tenges per liter.

For cargo, special, and specialized vehicles, and buses, with a Kazakhstani vehicle registration certificate, up to 300 liters per day: 230 tenges per liter [16].

Kyrgyz Parliament member Dastan Bekeshev openly voiced his discontent with this directive, which aims to safeguard the energy security of the domestic market. He highlighted that "Kyrgyz businessmen, who transport goods to foreign countries via trucks, are incurring losses due to Kazakhstan's hike in diesel prices for foreigners. Given the current circumstances, Kyrgyzstan's neighbors should consider selling water to Kazakhstan and Uzbekistan" [17]. Such political rhetoric has been echoed by Kyrgyz politicians before. In November 2017, former Kyrgyz President Almazbek Atambayev stated during a press conference: "In reality, all we need to do is cut off water to Kazakhstan for two days, and the border will open immediately" [18].

Presently, Kyrgyzstan lacks significant economic prowess in the region, making water merely a tool of "soft power" for them. Consequently, Kyrgyzstan employs this leverage solely against its neighbors and only in dire situations. However, as the economy progresses and reliance on neighboring countries diminishes, Kyrgyzstan may elevate its water trade to the level of "hard power" in the future.

*Economic Implications and Hydroelectric Prospects.*The economy of Kyrgyzstan relies heavily on its water resources, particularly in the production and export of electricity and agricultural products to neighboring countries. However, the revenue generated from selling electricity generated by Kyrgyzstan's hydroelectric power stations has been steadily declining each year. Several factors contribute to this decline. Firstly, there has been a significant increase in electricity consumption within Kyrgyzstan itself, with domestic demand surpassing 40 million kW per hour in recent years, compared to 22-25 million kW per day previously. Secondly, the aging infrastructure of hydroelectric plants poses a challenge, with approximately 70-80% of equipment at power stations considered worn out, and national electric networks suffering from outdated equipment ranging from 52% to 84%. Thirdly, there has been a gradual decrease in the volume of water available for hydroelectric plants, particularly evident in the Toktogul reservoir, which accounts for 40-50% of Kyrgyzstan's electricity production. For instance, data shows a decline in water levels from 14.1 billion cubic meters in January 2020 to 9.4 billion cubic meters in January 2022. Experts warn that if the reservoir's water level falls below 5.5 billion cubic meters, the dam's operation could be compromised [20][21].

Kyrgyzstan and Tajikistan are placing significant expectations on the CASA-1000 project. CASA-1000 (Central Asia-South Asia power project) aims to export surplus hydroelectric power generated in Kyrgyzstan and Tajikistan to Afghanistan and Pakistan. The project, with a total cost of 1.2 billion US dollars, commenced implementation in 2016, with commissioning scheduled for 2024 [22].

Today, the implementation of the CASA-1000 project may face several challenges:

1. Escalating armed conflicts between Kyrgyzstan and Tajikistan have been a concern in recent years. Over the past decade, there have been 144 major and minor conflicts between the two countries [24].

Figure 1. **The map of the CASA-1000project [23].**

Historically, conflicts between Kyrgyzstan and Tajikistan have revolved around water and land disputes. The April-May 2021 conflict, for instance, centered around the Golovnoy water distribution facility on the Ak-Suu River, situated on the Kyrgyz-Tajik border. Golovnoy, owned by Kyrgyzstan, plays a crucial role in channeling water: one stream goes to Tajikistan, while the other fills the Tortkul Reservoir in Kyrgyzstan. Control over Golovnoy is strategically significant for Kyrgyzstan's water security and provides leverage in political negotiations. A conflict in September 2022 resulted in approximately one hundred casualties on both sides. The Vorukh exclave of Tajikistan, located within Kyrgyzstan's territory, is another point of contention.

Figure 2. **The Map of the Kyrgyz-Tajik conflict on September 14-19[28].**

Only one road connects Vorukh to Tajikistan, which Tajikistan aims to fully integrate. Disagreements over border demarcation persist, with 460 square kilometers of the 970-kilometer border still unresolved [27], indicating the likelihood of ongoing disputes in the future.

The Kyrgyz side had previously offered several ways to the Tajik side to solve the enclave issue. First, the Kyrgyz side will open a road connecting Vorukh with Tajikistan, but that road will bypass the Kyrgyz village of Ak-sai and will be used only for communication. The second proposal is to exchange Vorukh, which is 12,000 hectares in size, for land of the same size in Leilek or Batken regions of Kyrgyzstan [29].

2. Another contributing factor is the declining water level in the Toktogul reservoir, as mentioned earlier. Rasul Umbetaliev, a prominent Kyrgyz energy specialist, highlights that the diminishing water level in the Toktagul reservoir results in reduced hydroelectric power production for Kyrgyzstan and a shortage of irrigation water for Kazakhstan and Uzbekistan during the spring months [30].

The hydropower potential of Kyrgyz rivers is approximately 174 billion kW-hours, with a power capacity of 19.8 million kW [31]. Despite being a significant electricity producer, Kyrgyzstan faces shortages during the winter season. The country consumes about 15 billion kW-hours annually, with this figure increasing by 4-5% each year. In 2021, Kyrgyz authorities allocated 2 billion kW-hours to conserve water in the Toktagul reservoir. To meet its electricity demands, Kyrgyzstan imports power from neighboring countries like Kazakhstan, Uzbekistan, and Turkmenistan through exchanges and direct purchases. Under agreements, Kazakhstan is set to transfer 900 million kW-hours to Kyrgyzstan from March to November 2021, while Uzbekistan plans to export 750 million kW-hours from March 2021 to April 2022. Overall, Kyrgyzstan received 1 billion kW-hours from its neighbors, with 650 million kW-hours borrowed and scheduled for repayment by 2023. Additionally, Turkmenistan is expected to supply 501 million kW-hours to Kyrgyzstan from August to December 2021. In the first half of 2022, Turkmenistan's total exports to Kyrgyzstan amounted to 45.6 million kW-hours and 1.7 billion US dollars, including 7.4 million USD worth of exported tomatoes [32]. According to data from the National Statistical Committee of the Kyrgyz Republic, Kyrgyzstan earned a total of 900 million USD from 1994 to 2018. The highest income, 83.2 million USD, was recorded in 1997, while the lowest was in 2015 at just 32 thousand USD [33].

Water and agriculture. Kyrgyzstan, much like its neighboring countries, is a significant exporter of agricultural products. According to the Minister of Agriculture, Askarbek Janybekov, between January and May 2022, Kyrgyzstan is projected to export agricultural goods worth 196.9 million USD, marking a 36% increase from the previous year. Additionally, the country exported 83.8 million USD worth of food and processed goods, along with 71.9 million USD worth of grain products during the same period. This robust export performance contributed to Kyrgyzstan's total agricultural product revenue of 1.1 billion USD [34]. Data from 2022 indicates that Kyrgyzstan's annual water consumption

stands at 10 billion cubic meters, with 5.2 billion cubic meters allocated for agricultural use [35].

Conclusions

In conclusion, the analysis illuminates the pivotal role that water resources play in shaping both the economic landscape and the geopolitical dynamics of the Kyrgyz Republic. With its ample water reserves, Kyrgyzstan wields significant political influence in Central Asia, using water as a strategic bargaining tool in its interactions with neighboring states. The country's economy is intricately tied to its water resources, particularly evident in the hydroelectric sector. However, vulnerabilities arise from fluctuations in water levels, impacting electricity generation and necessitating external electricity procurement during low-water periods. Alongside hydroelectricity, agriculture stands as a pillar of the Kyrgyz economy, contributing substantially to national revenue. Water resources play a crucial role in sustaining agricultural productivity and driving economic growth in this sector. Recognizing the centrality of water to its economic vitality, Kyrgyzstan is increasingly orienting its future economic strategies around sustainable water resource management and development. Water resources remain a contentious issue in Kyrgyzstan's relations with neighboring countries, often sparking conflicts over land and water rights. These tensions underscore the intricate intersection of water security and regional geopolitics in Central Asia. In essence, the Kyrgyz Republic's journey towards economic prosperity and political stability is inextricably intertwined with its management and utilization of water resources, emphasizing the imperative of adopting holistic strategies that balance economic development with environmental sustainability and regional cooperation.

REFERENCES:

1. Encyclopedia Britannica. Central Asia. // URL:https://www.britannica.com/place/Central-Asia (accessed: 05.12.2023)
2. Mamatkov D.M., Bazhanova L.V. Transgranichnye vodnye resursy Central'noj Azii I problem effektivnogo ispol'zovaniya. [Transboundary water resources of Central Asia and problems of efficient use] // URL: https://ecogosfond.kz/wp-content/uploads/2019/07/CA.D.236-Transgranichnye-vodnye-resursy-Centralnoj-Azii -i-problemy-jeffektivnogo-ispolzovanija.pdf (accessed: 05.12.2023)
3. Kyrgyzstan. // URL:http://www.president.kg/kg/kyrgyzstan (accessed: 05.12.2023)
4. Alamanov S.K. Transgranichnye vodnye resursy Kyrgyzii. [Transboundary water resources of Kyrgyzstan] // URL:https://www.postsovietarea.com/jour/article/viewFile/85/86 (accessed: 05.12.2023)
5. E.B.Tologonov. Vodnye resursy Kyrgyzskoj Respubliki. [Water resources of the Kyrgyz Republic] // URL:http://nisi.kg/blog/101-Vodnyie-riesursy-Kyrghyzskoi-Riespubliki.html (accessed: 06.12.2023)

6. Vodnye resursy. [Water resources.] // URL:http://data.movegreen.kg/indicator/5 (accessed: 06.12.2023)
7. G. Ch. Donbaeva. Osobennosti transgranichnyh rek Central'noj Azii (na primere Kyrgyzstana). [Features of transboundary rivers of Central Asia (on the example of Kyrgyzstan)] // URL:https://cyberleninka.ru/article/n/osobennosti-transgranichnyh-rek-tsentralnoy-azii-na-primere-kyrgyzstana (accessed: 06.12.2023)
8. Konstituciya Kyrgyzskoj Respublikiot 5 maya 1993 goda No. 1186-XII. [The Constitution of the Kyrgyz Republic dated May 5, 1993 No. 1186-XII] // URL:http://cbd.minjust.gov.kg/act/view/ru-ru/1/30?cl=ru-ru (accessed: 07.12.2023)
9. Konstituciya Kyrgyzskoj Respublikiot 5 maya 2021 goda. [The Constitution of the Kyrgyz Republic of May 5, 2021.] // URL:http://cbd.minjust.gov.kg/act/view/ru-ru/112213?cl=ru-ru (accessed: 07.12. 2023)
10. Dzhajloobaev A.SH., Departament vodnogo hozyajstva MSVH i PP Kyrgyzskoj Respubliki. [Department of Water Resources, MAWR and PP of the Kyrgyz Republic.] // URL:http://www.cawater-info.net/review/legal_kg.htm (accessed: 10.12.2023)
11. Barry Buzan, Ole Wæver and Jaap De Wilde. Security: A New Framework For Analysis. 1998. r. 74. (accessed: 10.12.2023)
12. Mark Zeitoun, Jeroen Warner. Hydro-Hegemony a Framework for Analysis of Trans-Boundary Water Conflicts. // URL:https://www.researchgate.net/publication/40112175_Hydro-Hegemony_a_Framework_for_Analysis_of_Trans-Boundary_Water_Conflicts (accessed: 10.12.2023)
13. Kyrgyzstan ob''yasnyaet prekrashchenie podachi polivnoj vody v Kazahstan remontom na vodohranilishche. [Kyrgyzstan explains the interruption of irrigation water supply to Kazakhstan by repairing the reservoir] // URL:https://kaztag.kz/ru/news/kyrgyzstan-obyasnyaet-prekrashchenie-podachi-polivnoy-vody-v-kazakhstan-remontom-na-vodokhranilishche (accessed: 12.12.2023)
14. U Kyrgyzstana poyavilsya argument. [Kyrgyzstan has an argument.] // URL:https://kursiv.kz/news/2010-05/u-kyrgyzstana-poyavilsya-argument (accessed: 12.12.2023)
15. Depuт posovetoval kabminu perekryt' vodu Kazahstanu za ekonomicheskuyu blockadu. [The deputy advised the Cabinet of Ministers to turn off the water to Kazakhstan for the economic blockade.] // URL:https://kaktus.media/doc/458840_depytat_posovettoval_kabminy_perekryt_vody_kazahstany_za_ekonomicheskyu_blokady.html (accessed: 12.12.2023)
16. State regulation of oil products, which are regulated by the state, should be determined according to the amendment of the Minister of Energy of the Republic of Kazakhstan No. 361 of 2015. [On making changes to the Order No. 361 of May 19, 2015 of the Minister of Energy of the Republic of Kazakhstan "On establishment of maximum prices for oil products sold in retail trade, whose prices are regulated by the state".] // URL:http://zan.gov.kz/client/#!/doc/170780/kaz (accessed: 14.12.2023)
17. Dzhamilya Musuraleva. Is it necessary to sell Kyrgyzstan to Kazakhstan and Uzbekistan? My opinion. [Should Kyrgyzstan sell water to Kazakhstan and Uzbekistan?] // URL:https://kaktus.media/doc/466636_nyjno_li_kyrgyzstany_prodavat_vody_kazahstany_i_yzbekistany_mneniia.html (accessed: 14.12.2023)
18. "Dostatochno vyklyuchit' Kazahstanu vodu na dva dnya": kakie ul'timatumy stavili chinovniki Kyrgyzstana Kazahstanu. ["It is enough to turn off the water for Kazakhstan for two days": what ultimatums did the officials of Kyrgyzstan put to Kazakhstan.] // URL:https://www.caravan.kz/news/dostatochno-vyklyuchit-kazakhstanu -vodu-na-dva-dnya-kakie-ultimatumy-stavili-chinovniki-kyrgyzstana-kazakhstanu-838477/

(accessed: 15.12.2023)
19. Marat Tagaev. SASA-1000: Kyrgyzstan nameren eksportirovat' elektroenergiyu. [CASA-1000: Kyrgyzstan intends to export electricity.] // URL:https://rus.azattyk.org/a/31193247.html (accessed: 15.12.2023)
20. Yrysbek Ulukbek uulu. V 2022 godu Kyrgyzstan ozhideet eshche bol'shij deficit elektroenergii. [In 2022, Kyrgyzstan expects an even greater shortage of electricity] // URL:https://rus.azattyk.org/a/31664926.html (accessed: 15.12.2023)
21. Maëva Pouffier. A significant power shortage expected for Kyrgyzstan in 2022. // URL:https://novastan.org/en/kyrgyzstan/a-significant-power-shortage-expected-for-kyrgyzstan-in-2022/ (accessed: 17.12.2023)
22. Secretariat project peredachi elektro energii CASA-1000. [Secretariat of the CASA-1000 Electricity Transmission Project.] // URL:https://www.usaid.gov/ru/central-asia-regional/fact-sheets/secretariat-casa-1000-power-transmission (accessed: 17.12.2023)
23. What is CASA-1000? // URL: https://www.casa-1000.org/ (accessed: 17.12.2023)
24. Yrysbek Ulukbek uulu, Ajbek Abdyldaev. Kyrgyz-Tadzhik border: chronology of conflicts. [Kyrgyz-Tajik border: a chronology of conflicts] // URL: https://rus.azattyk.org/a/32063424.html (accessed: 17.12.2023)
25. Tadzhikistan zayavlyaet svoi pretenzii na vodnye resursy Kyrgyzstana. [Tajikistan declares its claims to the water resources of Kyrgyzstan.] // URL:https://24.kg/proisshestvija/192014_tadjikistan_zayavlyaet_svoi_pretenzii_navodnyie_resursyi_kyirgyizstana/ (accessed: 17.12.2023)
26. Temur Umarov. Kul't must. Otkuda I kuda vedet vojna Kyrgyzstana I Tadzhikistana. [Revenge cult. Where and where is the war between Kyrgyzstan and Tajikistan] // URL: https://carnegieendowment.org/politika/87961 (accessed: 17.12.2023)
27. D. Voroshilov, L. Pashkova. Prigranichnyj konflikt Kirgizii i Tadzhikistana. [Border conflict between Kyrgyzstan and Tajikistan] // URL:https://www.rbc.ru/politics/18/09/2022/632428299a794745d8046839 (accessed: 17.12.2023)
28. Konflikt na kyrgyzsko-tadzhikskoj granice. Chto proiskhodilo v 17-go sentyabrya? [Conflict on the Kyrgyz-Tajik border. What happened on September 17th?] // URL:https://kg.akipress.org/news:0/ (accessed: 20.12.2023)
29. Kyrgyzstan predlagaet obmenyat' anklav Voruh na drugie uchastki. [Kyrgyzstan proposes to exchange the Vorukh enclave for other areas.] // URL:https://24.kg/vlast/187764/ (accessed: 20.12.2023)
30. Bakyt Chermashev. V Kyrgyzstane voznikla ugroza deficit polivnoj vody. [There is a threat of shortage of irrigation water in Kyrgyzstan] // URL: https://24.kz/ru/news/in-the-world/item/530045-v-kyrgyzstane-voznikla-ugroza-defitsita-polivnoj -vody (accessed: 20.12.2023)
31. Andeeva Z.T. Analyz I prognozirovanie proizvodstva elektroenergii Kyrgyzstana metodom naimen'shihi kvadratov. [Analysis and forecasting of electricity production in Kyrgyzstan by the least and squares method] // URL:https://cyberleninka.ru/article/n/analiz-i-prognozirovanie-proizvodstva-elektroenergii-kyrgyzstana-metodom-naimenshih-kvadratov(accessed: 20.12.2023)
32. Turkmenistan exported electrical energy to Kyrgyzstan in the sum of $45 million. [Turkmenistan exported electricity to Kyrgyzstan in the amount of more than $45 million] // URL:https://turkmenportal.com/blog/51147/turkmenistan-eksportiroval-elektroenergiyu-v-kyrgyzstan-na-summu-bolee-chem-45 -mln (accessed: 20.12.2023)
33. Kyrgyzstan sold electricity for $900 million. — graphic po godam. [Kyrgyzstan sold electricity for $900 million - chart by years.] // URL:https://ru.sputnik.kg/20190426/kyrgyzstan-ehlektroehnergiya-ehksport-

grafik-1044110572.html (accessed: 22.12.2023)
34. Kyrgyzstan uvelichil export sel'hozprodukciibolee chem na tret'. [Kyrgyzstan increased the export of agricultural products by more than a third.] // URL:https://e-cis.info/news/567/102080/ (accessed: 22.12.2023)
35. Za poslednie gody obshchee potreblenie vody v KR snizilos' s 13 do 10 mld. kubometrov. [In recent years, the total water consumption in the Kyrgyz Republic has decreased from 13 to 10 billion cubic meters.] // URL:https://economist.kg/novosti/2022/11/04/za-poslednie-gody-obshhee-potreblenie-vody-v-kr-snizilos-s-13-do-10-mlrd-kubometrov/ (accessed: 22.12.2023)