



«Զորավար Սեպուհ» պատմաքաղաքական վերլուծական կենտրոն

«Zoravar Sepouh» historical-political analytical center

ՊԱՏՄՈՒԹՅՈՒՆ ԵՎ ՔԱՂԱՔԱԿԱՆՈՒԹՅՈՒՆ
ԳԻՏԱԿԱՆ ՀԱՆԴԵՍ
ԹԻՎ 3(8)

HISTORY AND POLITICS
ACADEMIC JOURNAL
№3(8)

ԵՐԵՎԱՆ 2020

**Հանդեսը տպագրվում է «Զորավար Սեպուհ» պատմաքաղաքական
վերլուծական կենտրոնի գիտական խորհրդի որոշմամբ**

Գլխավոր խմբագիր՝ ԱՇՈՏ ՆԵՐՍԻՍՅԱՆ

Խմբագրական խորհուրդ

Աշոտ Ենգոյան, Արմեն Ճուղուրյան, Արմեն Սահակյան, Բագրատ
Էսդուգյան (Թուրքիա, Իստամբուլ),
Եզնիկ արքեպիսկոպոս Պետրոսյան, Էդիկ Մինասյան,
Ժիրայր Լիպարիտյան (ԱՄՆ, Բոստոն), Համլետ Գևորգյան, Հովսեփ
Աղաջանյան, Մարտին Գիլավյան,
Վալերի Միրզոյան, Վալերի Թունյան,
Ռաֆիկ Նահապետյան

Գլխավոր խմբագրի տեղակալ՝ Արտաշես Ղազարյան

Պատասխանատու քարտուղար՝ Թամարա Մարգարյան

COAL INDUSTRY DEVELOPMENT POTENTIAL
IN THE REPUBLIC OF ARTSAKH IN THE CONTEXT
OF ENERGY INTEGRATION WITH ARMENIA¹

VAHE DAVTYAN

Keywords - Artsakh, Armenia, coal, energy, security, thermal power plant, transport, logistics.

Introduction

The problems of sovereignty and institution-building are directly related to the problems of economic security of Republic of Artsakh and especially of its components, such as energy and energy transport communications, the integrated development of which is an important condition for the full and safe functioning of the state. These are key sectors of the economy that are of undeniable importance both for domestic development and for the formation of the prerequisites for international integration. Moreover, the degree of state sovereignty directly affects the effectiveness of its involvement in the system of logistics communications, which is especially evident in export-import operations or in attracting foreign loans and investments for the development of these industries.

At the same time, the communication limitations of Artsakh are reflected in ensuring the economic security of the state, and therefore negatively affects the functioning of state institutions and the national security system. This makes the state more vulnerable, preventing the full development of internal infrastructures in accordance with international standards and, as a result, ensuring an adequate level of security during their operation. In general, it can be stated that the level of sovereignty and the availability of effectively operated and safe strategic infrastructures are in many ways interrelated phenomena, and their convergent development can positively affect the level of not only economic, but also national security of the state, increasing its sovereignty. This approach fits well with our thesis that recognition of Artsakh's sovereignty by the international community in many respects should be a consequence of the

¹ This work was supported by the RA MESCS Science Committee, in the frames of the research project № 19YR-5F001

republic's internal institutional and economic development. Thus, the possibilities of becoming Artsakh as an energy-self-sufficient state (which, considering rich hydropower resources of the republic, seems possible), as well as the prospects for developing energy transport communications with Armenia, can become a locomotive for ensuring the economic security of Artsakh and.

This approach fits well with the theory of *neo-functionalism*, which advocates the position that interstate relations should be restructured in such a way that “vertical” territorial isolation is replaced by effective “horizontal” structures, the administration of which will regulate interstate cooperation in specific, in particular, economic areas. As P.A. Tsygankov writes, “the international environment will undergo global changes, due to which soldiers and diplomats will give way to administrators and technicians, relations between offices will be direct contacts between technical administrations, and the protection of sovereignty will be a pragmatic solution to specific issues”¹. In general, in the framework of the theory of neo-functionalism, it is postulated that the benefits of cooperation in one area inevitably become a motivator for ensuring integration in other ones, including politics. This approach can serve as a conceptual basis for ensuring the institutional development of the Artsakh Republic through the permanent deepening of economic cooperation with Armenia in the field of energy and transport communications.

Coal Industry of the World

The world currently consumes over 4050 Mt of coal. Coal is used by a variety of sectors – including power generation, iron and steel production, cement manufacturing and as a liquid fuel. The majority of coal is either utilized in power generation – steam coal or lignite – or iron and steel production – coking coal. Over 4030 Mt of coal is currently produced – a 38% increase over the past 20 years. Coal production has grown fastest in Asia, while Europe has actually seen a decline in production².

Coal makes up the bulk (87.5%) of the forecast resources of the Earth's fossil fuel. World proven coal reserves amount to more than 900 billion tons. Moreover, compared to oil and natural gas, global coal reserves are characterized by a more even distribution across regions of the world (Table 1.)

Table 1³

¹ Теория международных отношений: Хрестоматия / Сост., науч. ред. и коммент. П.А. Цыганков. – М.: Гардарики, 2003. - С. 317.

² The Coal Resource: A Comprehensive Overview of Coal / World Coal Institute // https://www.worldcoal.org/file_validate.php?file=coal_resource_overview_of_coal_report%252803_06_2009%2529.pdf

³ BP Statistical Review of World Energy // <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>

Proven coal reserves in the world, %

Europe	6,1
CIS	25
North America	28
Central And South America	2,2
Middle East	0,5
Africa	5,6
Asia	24
Australia and Oceania	8,7
Total	100

It is estimated that with current levels of coal mining, it will last about 165 years. At the same time, the United States is provided separately for 200 years, China - for 70 years, the CIS - for 500 years. The scope of coal is more limited than oil. This type of fuel remains key in the steel industry (70% of world steel production depends on coal) and in the electric power industry¹. Coal plays a vital role in power generation and this role is set to continue. Coal currently fuels 39% of the world's electricity and this proportion is expected to remain at similar levels over the next 30 years².

The leaders in coal consumption are the countries of Asia (56%), followed by the countries of North America (20%), Western, Central and Eastern Europe and the CIS countries.

The largest coal exporters are Australia, Indonesia, Russia, South Africa, China, Colombia and the USA. Among the largest importers are Japan, South Korea, Taiwan, India and China.

Until 2025, it is expected that the share of coal in global primary energy consumption will decrease to 22% and replace it with a more environmentally friendly source of energy - natural gas. Moreover, the decrease is mainly due to the EU energy policy aimed at reducing the specific gravity of coal and nuclear energy. In the key coal-consuming countries - China and India China and India, an increase in coal consumption is noticeable. It is expected that in these countries, by 2025, coal consumption will increase to 3370 million tons³.

The coal mining and power generation industry becomes global. Whereas international sea-borne hard coal trade accounted for only 7.5 % of world hard

¹ Олейнов А.Г. Топливо-энергетический комплекс мира. – М.: НАВОНА, 2008. – С. 60.

² The Coal Resource: A Comprehensive Overview of Coal / World Coal Institute // https://www.worldcoal.org/file_validate.php?file=coal_resource_overview_of_coal_report%252803_06_2009%2529.pdf

³ Олейнов А.Г. Топливо-энергетический комплекс мира. – М.: НАВОНА, 2008. – С. 61.

coal production in 1970, by 2000 already 16 % of production was internationally traded. At 637 mill t in 2000, international coal shipments are expected to grow to 1051 mill t in 2030, corresponding to 15 % of world coal production¹.

This means that, despite the development of renewable energy observed in the world and an increase in the share of natural gas, coal will continue to be one of the key energy resources over the next two decades.

As International Energy Agency (IEA), stated “Concern about energy security, the threat of climate change and the need to meet growing energy demand (particularly in the developing world) all pose major challenges to energy decision-makers...a portfolio of existing and new technologies will be needed to address these challenges”. Thus, the commercialization and deployment of the next generation of clean coal technologies, particularly higher efficiencies and carbon capture and storage (CCS), will be central components of this developing portfolio and enhance steady progress toward the final goal of near-zero emissions².

Coal Industry Potential of Artsakh

The average annual solar equivalent energy of Artsakh is 1.6 trillion kWh, 99.7% of this energy is consumed by flora and fauna, it reflects and heats the airspace. Taking into account the remaining 0.3% of solar energy, the average annual total alternative energy of Artsakh for possible development is 7.02 billion kWh. Of these, 68% - the sun, 22% - wind, 8% - hydropower, 2% - geothermal energy³.

Existing coal processing technologies are solid-phase and liquid-phase complete and incomplete combustion, underground and pyrolysis gasification, combustion of a water-coal mixture and ultrafine coal, and plasma processing. Of the above processes, the most acceptable for Magavuz conditions is liquid-bearing complete combustion of a crushed mixture of two coal grades in a melt reactor. At the same time, enrichment of the fine grinding of the mixture is not required, which excludes the construction of an enrichment and grinding factory and the generation of waste. In barbitol conditions, high speed and complete combustion of coal in the melt are ensured. Dust formation and ablation are absent. Associated valuable components and sublimates accumulated in the melt are used. The technology is virtually waste-free. So, burning 1.5 million

¹ **Brendow K.** World Coal Perspectives to 2030 / World Energy Council , Geneva/London // https://www.worldenergy.org/assets/downloads/PUB_Sustainable_Global_Energy_Development_The_Case_for_Coal_2004_Exec_summary_WEC.pdf

² The Global Value of Coal / International Energy Agency, Working Paper, 2012 // <https://www.oecd-ilibrary.org/docserver/5k9gshqcdshl-en.pdf?expires=1590130184&Id=id&accname=guest&checksum=CBBF3F57B6714A535315B3B44CDB1A2E>

³ **Grigoryan G.** Coal of Magavuz - cheap energy source of Artsakh (Karabakh) // <http://yerkramas.org/article/55810/ugol-magavuz---deshevyj-energoistochnik-arcaxa-karabaxa>

tons per year of the Magavuz coal mixture in a 1000 MW reactor with a melt can produce 6.1 billion kWh of electric and 9.4 trillion kJ of thermal energy, 0.6 million tons of highly profitable by-products with a total worth 300 billion drams, of which 62% is the cost of electricity, 30% is thermal energy and 8% is associated products. In addition, valuable metals with a total value of 190 billion drams are also recovered. Artsakh acquires 3300 jobs with an average monthly salary of 200 thousand drams¹.

As a result of the application of new technologies, in 2019, it was possible to obtain synthetic petroleum products from coal obtained as a result of the development of the Artsakh deposit Magavuz. The volumes obtained correspond to scientifically established standards. In particular, 50% of diesel fuel, 30% of gasoline and 20% of bitumen were obtained from the mass of about 12%. In the case of the development of the second stage of the mine, which will take 3-4 months, it will be possible to clearly determine the reserves of Magavuz coal, since this is probably more than the results of the Soviet period - 4 million tons. Note that the production of synthetic oil from coal has recently become widespread. Not so long ago, the production of synthetic oil from a mixture of 50% coal with high-pressure water with cavitation mechanical and electromagnetic treatment was successfully tested in Krasnoyarsk. In this case, instead of clean water, waste and oiled water can be used. The technology allows for the complete processing of coal (both brown and stone) including the production of a water-coal suspension with its further processing into synthetic oil. The use of it, as heating oil, does not require significant modernization of the boiler. This technology is also used for the extraction of non-ferrous metals from dumps of enterprises. The equipment does not have rotating, rubbing, or impact mechanical parts, as a result of which there is no abrasive wear of grinding equipment. At the exit, we get fuel with a dispersion of 1-5 microns (a drop of fuel oil when sprayed with a nozzle has 5-10 microns) in its characteristics close to oil².

Possibilities of Coal Import from Artsakh to Armenia

An important attempt to diversify the energy system of Armenia was the initiative of the Government of the Republic of Armenia to import thermal coal from the Republic of Artsakh as fuel for the third largest installed energy facility in the country - Yerevan Thermal Power Plant (TPP). In 2011-2012, in Armenia, prices for Russian natural gas were expected to increase from 180 to 189 US dollars per 1000 cubic meters. Before that, in 2008, the gas price for the Armenian market was 154 US dollars. Considering the economic risks generated in

¹ Ibid.

² It was possible to get synthetic oil products from coal obtained as a result of the development of the Karabakh deposit Magavuz // https://finport.am/full_news.php?id=38128&lang=2

the country's heat and power industry in the context of increasing natural gas tariffs, diversification of the industry through the supply of coal from Artsakh became a priority.

With modern technology, the production of electricity using water-carbon fuel is important for the economy, as its efficiency is higher than traditional coal combustion technologies. The old capacities of Yerevan TPP are not used due to low efficiency and high cost of electricity production. The application of new technologies for working with water and coal will allow continuing to use the production capacities of Artsakh with high efficiency.

According to the program aimed at the exploration of mineral resources approved in 2013 by the Government of the Artsakh Republic, it was planned to form the so-called geological fund, as well as the cadaster of mineral deposits¹.

Geological studies show that there are some types of solid fuel minerals and, in particular, coal in Artsakh. The reserves of the latter are estimated at 15 million tons (Magavuz group of deposits, Martakert region). Exploration is also carried out in the villages of Nareshat and Kolatak. As for liquid and gaseous fuels, a subsoil study is currently underway in the Martakert-Martuni-Gadrut region, as well as in the Hadrut-Kashatakh region². It was planned that both units of the Yerevan TPP will be operated on Magavuz coal, burning up to 2 thousand tons of coal daily. It was expected that the TPP found in the deposits would last for 5.5 years.

The main activity of the "Hasa Group" company established for the implementation of the project was the research and exploration of the mine in the village of Magavuz, Martakert region of Artsakh. As a result of it the company had to produce and process coal and sell recycled coal. The company planned to sell the recycled coal to Yerevan TPP, the necessary infrastructure works were carried out in the leased area of the power plant³.

To support the project, in February 2012, the Armenian government ordered to exempt "Ghana-Trans" transport company from value-added tax (VAT). In turn, the company committed to purchase 40 trucks with the purpose of supply of coal from Artsakh to the railway station Vardenis in Armenia. In October 2012, the first batch of Artsakh coal (26 railcars by 60 m) was delivered to the Yerevan TPP. It was assumed that by the end of 2012, up to 700 thousand

¹ NKR Government Program on Subsoil Research Activities in 2013 // <http://mnp.nkr.am/images/tsragrer/ynd.pdf>

² Ministry of Nature Protection and Minerals: Certificate of Minerals in the NKR // http://mnp.nkr.am/index.php?option=com_content&view=article&id=120&Itemid=120

³ "Հասա Գրուպ" ՍՊԸ համախմբված ֆինանսական հաշվետվություններ 2013 թ. Դեկտեմբերի 31-ին ավարտված տարվա համար // <file:///C:/Users/User/Downloads/32988.pdf>

tons of coal would be delivered to TPPs, and in 2013, this figure would reach 1.5 million tons. However, very soon this project, aimed, on the one hand, to diversify the Armenian heat power industry, on the other, to support the unrecognized Artsakh, was suspended. The conservation of the project was associated with two factors:

1. At the Yerevan TPP, electricity was never produced by using coal, and the water-coal technology for the station was new.

2. After the decision of the Armenian government to start the project, a stormy reaction of a number of civic institutions followed: they claimed that the use of coal at TPPs would double the carbon dioxide emissions into the atmosphere.

Both the first and second factors certainly influenced the conservation of the project. However, considering the issue in a geopolitical context, it should be noted that it was during the period when the Armenian authorities made a choice in favor of Eurasian integration, and in 2013 officially announced this. Armenia's membership in the EAEU has significantly reduced natural gas price for the Armenian market - from 189 to 150 US dollars¹.

Along with this, it is important to state that this membership opens up additional opportunities for Artsakh, as it allows to intensify trade and attract investors. Over the past three years, exports to Russia from Armenia, consisting mainly of agricultural products and the food industry, grew by 87%. The trade turnover between the two countries grew by more than 10%², which, of course, was ensured, among other things, due to the trading activity of Artsakh. As the Armenian economist T. Manaseryan writes, in the process of Eurasian integration "... the issue of Nagorno-Karabakh, which is de facto part of Armenia, is important, and with the latter's entry into the union, it will actually enter a new, huge market. It would be desirable that Nagorno-Karabakh also join the EAEU as an independent entity, which will also positively affect the resolution of the conflict with Azerbaijan, especially if the latter also joins this economic integration³.

Transport and Logistics Problems of Coal Supplies from Artsakh to Armenia

Despite the fact that the mentioned project was not implemented, Artsakh thermal coal should be considered as a potential and strategically important area of diversification of the energy system of Armenia. Of course, proper use of this potential requires appropriate transport infrastructures. Cur-

¹ The Republic of Armenia in the Eurasian Economic Union: First Results // http://www.eurasiancommission.org/ru/Documents/Armenia_eng.pdf

² Eurasian economic commission's official web-site // www.eurasiancommission.org

³ Манасерян Т. Присоединение Армении к ЕВРАЗЭС: мифы и реалии // http://www.soyuzinfo.am/rus/analytics/detail.php?ELEMENT_ID=216

rently, there is no railway connection between the Republic of Artsakh and Armenia, therefore, if necessary, coal should be delivered by road to the railway station of Vardenis in northern Armenia and from there by rail to the Yerevan TPP. For a long time, the road connecting Armenia with Artsakh (Vardenis-Martakert) was in poor condition, and the main road, connecting the two Armenian republics, passed through the Lachin corridor.

The level of its transport security, condition, density and configuration of the road network are important indicators of the socio-economic development of the territory. The only railway - Agdam-Stepanakert, operating in Nagorno-Karabakh during the Soviet period, having a length of 18 km, had a small share in the total volume of freight traffic. The main mode of transport was automobile. The main roads crossing the territory of Nagorno-Karabakh were Yevlakh-Lachin and Yevlakh-Kelbajar. They had Union-republican significance and were kept in a satisfactory condition. Local roads were in extremely poor condition: many villages did not have direct transport links with regional centers. The transport connection of Nagorno-Karabakh with the Armenia was artificially hampered, although they were separated by a 7 km wide corridor. In the extremely poor condition of this section of the road, motor vehicles from Nagorno-Karabakh to the Armenia and back were forced to drive hundreds of kilometers through the territory of the Azerbaijan SSR through Kazakh-Kirovabad-Yevlakh-Agdam¹.

As a result, Nagorno-Karabakh had extremely weak economic ties with other republics of the USSR and, especially, with the Armenian SSR. According to the Azerbaijani press, the share of turnover with the Georgia and Armenia in economic relations of Nagorno-Karabakh was only 2%. Armenia accounted for only 0.3% of the total cost of export from the region and 1.4% of import to the region. As was noted at a meeting of the Presidium of the Supreme Soviet of the USSR, the relations of Nagorno-Karabakh, even with the regions of Azerbaijan, are deformed and have no mutually beneficial character².

Thus, Karabakh Armenians could not fully use the existing transport infrastructure, especially with the aim of developing trade relations with Armenia. In particular, in order to transport goods or passengers from Nagorno-Karabakh to Armenia, instead of 10-15 km, it was necessary to travel more than 400-kilometer road running through the territory of Azerbaijan. Thus, the Lachin section of the road has not been repaired for years, while for the Arme-

¹ **Валесян Л.А., Мурадян Ю.А.** О некоторых итогах и проблемах экономического развития Нагорного Карабаха // Вестник общественных наук АН Армянской ССР // file:///C:/Users/Usset/Desktop/1989-5%25283%2529.pdf

² Ibid.

nians of Nagorno-Karabakh this road had both economic and moral-psychological significance.

Recognizing the strategic, political and economic importance of the Lachin corridor, after its liberation, Armenia implemented a policy of its early reconstruction and restoration of historical land communications between the two Armenian states. With the liberation of the Lachin corridor, the blockade of Karabakh was broken and a corridor to Armenia was formed, which opened up opportunities for military and humanitarian assistance. In October 1992, Azerbaijan launched a military operation to regain control of the corridor, which ended in complete failure¹.

Before the liberation of the Lachin region, Nagorno-Karabakh was in the condition of a severe economic blockade. The electricity and gas supply was cut off. The only and very dangerous way of transporting the necessary food products, medicines, etc. to Karabakh were air transportation using multipurpose Mi-8 helicopters and Yak-40 and AN-2 passenger aircraft adapted for cargo transportation.

The escalation of the Karabakh conflict in April 2016 emphasized the need to modernize the second road connecting the two Armenian states. As a result of the implementation of the decision of the Government of the Republic of Armenia adopted the day after the verbal agreement on a ceasefire with Azerbaijan, \$2 million was allocated for the repair of the Vardenis-Martakert road. Already in August 2017, the road was put into operation, which allowed to reduce the route from Armenia to Artsakh by more than 20 km. Due to the fact that the construction of the road was associated with the already ongoing program for the restoration of the Martuni-Vardenis-Sotk highway in Armenia within the framework of World Bank loans, the commissioning of the infrastructure became an important step in improving transport security not only in Artsakh, but also in Armenia².

CONCLUSIONS

The possibilities of becoming Artsakh as an energy-self-sufficient state, as well as the prospects for developing energy transportation communications with Armenia, can become a locomotive for ensuring the economic security of Artsakh and, therefore, form the necessary preconditions or its security and institutional development.

¹ **Жирохов М. А.** Семена распада: войны и конфликты на территории бывшего СССР. – СПб.: БХВ-Петербург, 2012. – С. 269.

² **Давтян В. С., Арутюнян А.Р., Самвелян Л.Э.** Внешнеторговые проблемы НКР в условиях транспортной блокады // 21-й век: Информационно-аналитический журнал. – Ереван, 2017. – 3 (44). – С. 80-91.

1. The conservation of the project of coal import to the Yerevan TPP was associated with two factors: a) at the Yerevan TPP, electricity was never produced by using coal, and the water-coal technology for the station was new; b) after the decision of the Armenian government to start the project, a stormy reaction of a number of civic institutions followed: they claimed that the use of coal at TPPs would double the carbon dioxide emissions into the atmosphere. Both the first and second factors certainly influenced the conservation of the project. However, considering the issue in a geopolitical context, it should be noted that it was during the period when the Armenian authorities made a choice in favor of Eurasian integration, and in 2013 officially announced this. Armenia's membership in the EAEU has significantly reduced natural gas price for the Armenian market - from 189 to 150 US dollars.

2. The diversification of the energy system of Armenia should also be considered in the context of building up the energy potential of the Republic of Artsakh. In the Republic of Artsakh, an excess of electricity is forecasted, which, in turn, can be considered as a potential export destination. If in the Soviet years the development of the energy transport infrastructure of Artsakh was blocked by the Azerbaijan SSR, today export problems are primarily associated with the status of Artsakh as an unrecognized state engaged in foreign trade through legal entities registered in Armenia. On the other hand, it is also necessary to take into account the availability of thermal coal reserves in Artsakh that can be resumed in the future when developing a new model for the development of Armenian-Artsakh "collective energy security".

REFERENCES

1. Теория международных отношений: Хрестоматия / Сост., науч. ред. и коммент. П.А. Цыганков. – М.: Гардарики, 2003. – 400 с.
2. The Coal Resource: A Comprehensive Overview of Coal / World Coal Institute // https://www.worldcoal.org/file_validate.php?file=coal_resource_overview_of_coal_report%252803_06_2009%2529.pdf
3. BP Statistical Review of World Energy // <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>
4. **Олейнов А.Г.** Топливо-энергетический комплекс мира. – М.: НАВОНА, 2008. – 472 с.
5. The Coal Resource: A Comprehensive Overview of Coal / World Coal Institute // https://www.worldcoal.org/file_validate.php?file=coal_resource_overview_of_coal_report%252803_06_2009%2529.pdf
6. **Brendow K.** World Coal Perspectives to 2030 / World Energy Council, Geneva/London // https://www.worldenergy.org/assets/downloads/PUB_Sustai

nable_Global_Energy_Development_The_Case_for_Coal_2004_Exec_summary_WEC.pdf

7. The Global Value of Coal/International Energy Agency, Working Paper, 2012 // [https://www.oecd-ilibrary.org/docserver/5k9gshqcdshl-en .pdf?expires=1590130184&id=id&accname=guest&checksum=CBBF3F57B6714A535315B3B44CDB1A2E](https://www.oecd-ilibrary.org/docserver/5k9gshqcdshl-en.pdf?expires=1590130184&id=id&accname=guest&checksum=CBBF3F57B6714A535315B3B44CDB1A2E)

8. **Grigoryan G.** Coal of Magavuz - cheap energy source of Artsakh (Karabakh) // <http://yerkramas.org/article/55810/ugol-magavuz---deshevyj-energoistochnik-arcaxa-karabaxa>

9. It was possible to get synthetic oil products from coal obtained as a result of the development of the Karabakh deposit Magavuz // https://finport.am/full_news.php?id=38128&lang=2

10. NKR Government Program on Subsoil Research Activities in 2013 // <http://mnp.nkr.am/images/tsragrer/ynd.pdf>

11. Ministry of Nature Protection and Minerals: Certificate of Minerals in the NKR // http://mnp.nkr.am/index.php?option=com_content&view=article&id=120&Itemid=120

12. “Հասա Գրուպ” ՍՊԸ համախմբված ֆինանսական հաշվետվություններ 2013 թ. Դեկտեմբերի 31-ին ավարտված տարվա համար // <file:///C:/Users/User/Downloads/32988.pdf>

13. The Republic of Armenia in the Eurasian Economic Union: First Results // http://www.eurasiancommission.org/ru/Documents/Armenia_eng.pdf

14. Eurasian economic commission's official web-site // www.eurasiancommission.org

15. **Манасерян Т.** Присоединение Армении к ЕВРАЗЭС: миф и реалии // http://www.soyuzinfo.am/rus/analitics/detail.php?ELEMENT_ID=216

16. **Валесян Л.А., Мурадян Ю.А.** О некоторых итогах и проблемах экономического развития Нагорного Карабаха // Вестник общественных наук АН Армянской ССР // <file:///C:/Users/uset/Desktop/1989-5%25283%2529.pdf>

17. **Жирохов М. А.** Семена распада: войны и конфликты на территории бывшего СССР. – СПб.: БХВ-Петербург, 2012. – 688 с.

18. **Давтян В.С., Арутюнян А.Р., Самвелян Л.Э.** Внешнеторговые проблемы НКР в условиях транспортной блокады // 21-й век: Информационно-аналитический журнал. - Ереван, 2017. – 3 (44). - С. 80-91.

Վահե Դավթյան, Արցախում ածխի արդյունաբերության զարգացման ներուժը Հայաստանի հետ էներգետիկ ինտեգրման համատեքստում - Ներկայացվել են Արցախի Հանրապետության էներգետիկ եւ էներգատ-

րանսպորտային զարգացման հայեցակարգային հիմքերը Հայաստանի Հանրապետության հետ տնտեսական համագործակցության շարունակական խորացման միջոցով: Որպես այդ մոտեցման հիմնավորման համար հիմք է ընտրվել նեոֆունկցիոնալիզմի տեսությունը: Դիտարկվել են Արցախի Հանրապետությունից Հայաստան էներգետիկ ածխի ներկրման հիմնական խնդիրները: Բացահայտվել են ներկրման իրականացման հիմնական տնտեսական և քաղաքական նախադրյալները: Ներկայացվել են 2013 թ. Երևանի ՋԷԿ իրականացված Արցախի ածխի մատակարարման նախագծի կասեցման հիմնական պատճառները: Վերլուծվել են մի շարք բնապահպանական կազմակերպությունների հայտարարությունները, համաձայն որոնց ՋԷԿ-ում ածուխի օգտագործումը կկրկնապատկի ածխաթթու զազի արտանետումները: Ուսումնասիրվել են արցախյան ածուխի մատակարարման հիմնական տրանսպորտային և լոգիստիկ խնդիրները:

Vage Davtyan, Потенциал развития угольной промышленности в республике Арцах в контексте энергетической интеграции с Арменией - Представлены концептуальные основы энергетического и энерготранспортного развития Республики Арцах посредством перманентного развития экономического сотрудничества с Республикой Армения. В качестве теоретической основы для обоснования данного подхода выбрана теория неофункционализма. Рассмотрены основные проблемы поставок энергетического угля из Республики Арцах в Армению. Выявлены основные экономические и политические предпосылки для реализации поставок. Определены ключевые факторы, помешавшие осуществлению поставок арцахского угля на Ереванскую ТЭС в 2013 г. Выявлено, что после решения правительства Армении приступить к реализации проекта последовала бурная реакция ряда гражданских институтов, утверждавших, что использование угля на ТЭС приведет к удвоению выбросов углекислого газа в атмосферу. Проанализированы основные транспортно-логистические проблемы осуществления поставок.

ԲՈՎԱՆԴԱԿՈՒԹՅՈՒՆ

ՊԱՏՄՈՒԹՅՈՒՆ ՀԱՅՈՑ

ԱՇՈՏ ՆԵՐՍԻՍՅԱՆ

ՀԱՅԿԱԿԱՆ ՀԱՐՑԸ ԼՈՆԴՈՆԻ ԵՎ
ԼՈԶԱՆԻ ԽՈՐՀՐԴԱԺՈՂՈՎՆԵՐՈՒՄ ----- 3

ВАЛЕРИЙ ТУНЯН

АНТИТЕЗИСЫ ГЕНОЦИДА АРМЯН ----- 21

ԽԱՉԱՏՈՒՐ ՍՏԵՓԱՆՅԱՆ

1921 Թ. ՓԵՏՏՐՎԱՐՅԱՆ ԱՊՍՏԱՄԲՈՒԹՅՈՒՆԸ ՈՐՊԵՍ
ԱՆԿԱԽՈՒԹՅԱՆ ՀԱՄԱՐ ՊԱՅՔԱՐԻ ԴՐՍԵՎՈՐՈՒՄ ----- 32

ԱՍԻԱՅԻ ԵՐԿՐՆԵՐԻ ՊԱՏՄՈՒԹՅՈՒՆՆԻՑ

ԱԼԵՔՍԱՆԴՐ ԽԱՉԱՏՐՅԱՆ

ԿԵՆՏՐՈՆԱԿԱՆ ԱՍԻԱՅԻ ԴԵՐՆ ՈՒ ՆՇԱՆԱԿՈՒԹՅՈՒՆԸ ՉԺՀ
ՏԱՐԱԾԱՇՐՋԱՆԱՅԻՆ ՔԱՂԱՔԱԿԱՆՈՒԹՅՈՒՆՈՒՄ
(XX-ԲԴ ԴԱՐԻ ՎԵՐՋ) ----- 43

ՀԱՅ ԵԿԵՂԵՑՈՒ ՊԱՏՄՈՒԹՅՈՒՆՆԻՑ

ԱՐՄԱՆ ԱՆԴՐԻԿՅԱՆ

ՂՈՒԿԱՍ Ա ԿԱԹՈՂԻԿՈՍԻ ՀԱՐԱԲԵՐՈՒԹՅՈՒՆՆԵՐԸ
ԻՐԱՆԱՀԱՅ ԹԵՄԵՐԻ ՀԵՏ ----- 56

ՀԱՅՈՑ ԳՐԱԿԱՆՈՒԹՅԱՆ ԵՎ ԼԵԶՎԻ ՊԱՏՄՈՒԹՅՈՒՆՆԻՑ

ՆԻՆԵԼ ՍԱՐԳՍՅԱՆ

«ՆԵՐԿԱՅՈՒՄ ՀԱՆԳՐՎԱՆՈՂ ԱՆՅՅԱԼ» (Պատմության
շարունակականության ընկալումները Արմեն Մարտիրոսյանի
«Միջնադարի առավոտը» բանաստեղծությունների շարքում) ----- 65

ԱՆՆԱ ՎԱՐԴԱՆՅԱՆ

ԲԱՅԱԿԱՆ ՀԻՄՆԱԲԱՂԱԴՐԻՉՈՎ ԻՍԿԱԿԱՆ

ԲԱՐԴՈՒԹՅՈՒՆՆԵՐԻ ՊԱՐԱԳԱՅԱԿԱՆ
ՀԱՐԱԲԵՐՈՒԹՅՈՒՆՆԵՐԸ ԳՐԱԲԱՐՈՒՄ ----- 70

ՀԱՅ ՄՇԱԿՈՒՅԹԻ ՊԱՏՄՈՒԹՅՈՒՆԻՑ

ԳԱԳԻԿ ԱՎԵՏԻՍՅԱՆ
ՀԱՅԱՍՏԱՆԻ ԱՌԱՋԻՆ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ
«ԱՐԵՎԱՊԱՇՏ» ՆԿԱՐԻՉՆԵՐԸ ----- 76

ՔԱՂԱՔԱԳԻՏՈՒԹՅՈՒՆ

VAHE DAVTYAN
COAL INDUSTRY DEVELOPMENT POTENTIAL
IN THE REPUBLIC OF ARTSAKH IN THE CONTEXT
OF ENERGY INTEGRATION WITH ARMENIA ----- 82

ՀԱՍՄԻԿ ՇԱՓԱՂԱԹՅԱՆ
ԻՆՉՈՒ ԵՎ ԻՆՉՊԵՍ ՏԵՂԻ ՈՒՆԵՑԱՎ ՀԱՅԿԱԿԱՆ
ՈՉ ԲՈՆԻ, ԹԱՎՇՅԱ ՀԵՂԱՓՈԽՈՒԹՅՈՒՆԸ ----- 94

ՏՆՏԵՍԱԿԱՆ ՔԱՂԱՔԱԿԱՆՈՒԹՅՈՒՆ

ԿԱՐԵՆ ԱԼԱՎԵՐԴՅԱՆ
ՀՀ ՀԱՆՐԱՅԻՆ ՀԱՏՎԱԾԻ ՀԱՇՎԱՊԱՀԱԿԱՆ
ՀԱՇՎԱՌՄԱՆ ՀԱՄԱԿԱՐԳԻ ԶԱՐԳԱՑՈՒՄՆԵՐԸ ----- 105

ԱՐՄԵՆ ՃՈՒՂՈՒՐՅԱՆ, ՆՈՆՆԱ ԽԱՉԱՏՐՅԱՆ
ՀԵՌԱՎԱՐ ՈՒՍՈՒՑՄԱՆ ԶԱՐԳԱՑՄԱՆ ՊԱՏՄԱԿԱՆ ԸՆԹԱՑՔԸ
ԵՎ ՄԱՐՏԱՀՐԱՎԵՐՆԵՐԸ ՀԱՄԱՃԱՐԱԿԻ
ՊԱՅՄԱՆՆԵՐՈՒՄ ----- 115

ԶԲՈՍԱՇՐՋՈՒԹՅԱՆ ՀԱՐՑԵՐ

ՀԱՍՄԻԿ ՍԱՅԱՂՅԱՆ
ՌԻՍԿԵՐԻ ԿԱՌԱՎԱՐՄԱՆ ԱՆՀՐԱԺԵՇՏՈՒԹՅՈՒՆԸ
ԶԲՈՍԱՇՐՋՈՒԹՅԱՆ ՈԼՈՐՏՈՒՄ ----- 123

ԳՐԱԽՈՍՈՒԹՅՈՒՆ ----- 133

**ՆՅՈՒԹԵՐ ՀԱՅՈՑ ՆՈՐ ԵՎ ՆՈՐԱԳՈՒՅՆ
ՇՐՋԱՆԻ ՊԱՏՄՈՒԹՅԱՆ ՀԱՄԱՐ**

ՊԱՏՄԱԲԱՆ ԼԵՆԴՐՈՒՇ ԽՈՒՐՇՈՒԴՅԱՆԻ ԱՆՁՆԱԿԱՆ ԱՐԽԻՎԻՑ -----	139
ԽՄԲԱՊԵՏ ՂԱԶԱՐ ՔՈՉԱՐՅԱՆԻ ՀՈՒՇԵՐԻՑ -----	143
ՏԵՂԵԿՈՒԹՅՈՒՆՆԵՐ ՀԵՂԻՆԱԿՆԵՐԻ ՄԱՍԻՆ -----	195