

CRUDE ACCOUNTABILITY

Road to China

China's Oil and Gas Ventures in Central Asia
Social and Environmental Impacts

November 2021

About Us

Crude Accountability is an environmental and human rights nonprofit organization that works with communities in the Caspian and Black Sea regions who battle threats to local natural resources and the negative impacts on their health. Crude Accountability works on the local, national, regional, and international levels in partnership with active communities and organizations committed to a just and environmentally sustainable world. Based in Virginia, Crude Accountability also collaborates with environmental organizations in the United States working on similar issues.

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INTRODUCTION

This Crude Accountability report presents an overview of the impact of Chinese investments in the oil and gas sector in three Central Asian countries: Kazakhstan, Uzbekistan, and Turkmenistan. We examine the environmental and social impacts of these investments, which permanently change the lives of local residents living near the investment sites.

Introduction

This Crude Accountability report presents an overview of the impact of Chinese investments in the oil and gas sector in three Central Asian countries: Kazakhstan, Uzbekistan, and Turkmenistan. We examine the environmental and social impacts of these investments, which permanently change the lives of local residents living near the investment sites.

Each country highlighted in our report plays a key role in China's global infrastructure strategy, the Belt and Road Initiative. We analyzed the national and international standards to which investors in these three countries should comply. We compared these standards to the impacts reported in data and statistics of governments, local and international media, academic analyses, expert opinion, and other open sources. We also reviewed decisions by local legislatures and analyzed relevant international standards, as well as China's policies on the conduct of business abroad.

A key aspect of this report consists of Crude Accountability team's in-person interviews on the ground. Drawing on almost 20 years of experience with local grassroots activists and communities impacted by oil and gas development, we tell the stories of those whose lives are most upended, harmed by the unsustainable and dirty search for oil. By sharing stories from the investment sites, we dispel some of the rumors around these investments.

Our team, joined by independent local journalists, traveled to the communities close to oil sites in Kazakhstan and Uzbekistan, which are being developed by Chinese state-owned companies. This team spoke with local activists, villagers, and others negatively impacted by oil and gas development, in some cases, literally in their back yards. Our team documented the environmental, social, and economic damage caused by irresponsible practices; these are the key unique contributions of this report.

Unfortunately, but not surprisingly, we could not travel to Turkmenistan, still one of the world's most authoritarian and closed countries headed a repressive leader who rules through an unparalleled cult of personality and fear. We used open-source materials for this section of our report, as local civil society has been almost completely silenced. Indeed, sharing information, particularly about the oil and gas sector, the Turkmen economy's backbone, would be an extraordinarily dangerous endeavor.

Crude Accountability made several attempts to contact the Chinese oil companies, all of which were ignored.

Information collection for the report was also affected by the global COVID-19 pandemic. Limitations on travel made it impossible to undertake follow-up visits to regions where oil and gas are being developed. The crackdown on civil society during the pandemic worsened as governments use COVID-19 as a pretext to place further restrictions on journalists and activists. Increased monitoring, surveillance, and harassment have plagued our team, along with many other defenders in the region.

This report is a tale of failed responsibilities on all fronts: local authorities and national governments in Central Asia have not protected their citizens from environmentally and socially harmful oil and gas projects. The Chinese government and parastatal companies do not abide by

internationally accepted norms and standards. Government and corporate coffers may grow and China's growing energy demands may partly be met by these projects. But people living closest to the oil and gas fields, pipelines, and transport hubs suffer the most. Central Asian communities are harmed by environmentally and socially irresponsible governmental policy and implementation.

The report provides recommendations that can be implemented by all the parties involved - by China's oil companies, the Chinese government, Central Asian authorities, and local civil society. These recommendations respect local communities, propose a transition to a more sustainable energy future, and strive to build a more democratic and inclusive future for the citizens of the region.



EXECUTIVE SUMMARY

In violation of local laws and international agreements, state authorities and Chinese companies deny Central Asians access to relevant information and decision-making processes. These actors' impact on the environment directly impacts society, economy, and health of the local and national communities, as well as the region.

Executive Summary

This report by Crude Accountability addresses China's investments in the energy sectors of Kazakhstan, Uzbekistan, and Turkmenistan.

China's Belt and Road Initiative (BRI) acts as an infrastructure and resource tapping program that emerged as the result of growing energy demands and a necessity for secure access to energy in the country. Central Asia is vital to this strategy – not only as a key energy source, but also as an access point to Russia, the Persian Gulf, and Africa. Raw materials from these regions enter China through the Xinjiang Uygur Autonomous Region, leading to regional development, another BRI goal.

After 1997, China became Central Asia's top trade partner and investor. Increased Chinese regional influence poses major risks: decreased economic diversification in Central Asia, increased environmental degradation. It also exacerbates the current climate crisis. While China has reacted to international criticism on environmental impact and sustainability practices, specific data is scarce.

KAZAKHSTAN

Kazakhstan is China's closest neighbor and largest regional trading partner in the region. BRI plans include projects in Kazakhstan's metallurgy, oil and gas processing, chemical industry, mechanical engineering, energy, light industry, agricultural processing, as well as in transport and logistics sectors. China's role in the country's oil and gas sector remains one of the most controversial and longstanding issues for Kazakhstan. The total share of Chinese companies in Kazakhstan stands at some 17.7% of oil production (2019). China is the fourth-largest foreign investor in the country.

Compared to other foreign operators, Chinese companies tend to be less concerned about the environmental impact of and local engagement in Kazakhstan's oil and gas sector. In villages near China National Petroleum Corporation (CNPC) operation, local people report concerns of pollution and health impacts. Gas flaring, water exploitation by oil operations, and water contamination have resulted in increased respiratory and cardiovascular disease, and produce and livestock contamination, leading to decreased livelihood for local villagers.

The social impact of CNPC's local operations includes unemployment and decreased educational opportunities. While these concerns have been voiced, and while some concessions have been made by the Kazakhstani government and CNPC, there is a dearth of public data on joint programs and measures to address specific social problems. Further, no public data is available on CNPC's environmental impact. This stands in stark contrast to western companies, such as Karachaganak Petroleum Operating B.V. (KPO), which operates in the same region.

The lack of information from both state authorities and Chinese companies, combined with conflicting statements by Chinese states agencies and a complete disregard for connecting CNPC operations with increasing health risks and environmental damage, including that of a protected natural water basin, likely shows a high degree of corruption and certainly is a blatant violation of international agreements including the Aarhus Convention.

UZBEKISTAN

China has become the country's largest foreign investor and is one of the largest importers of Uzbek gas, exacerbating Uzbekistan's current budget crisis: natural gas exports are one of the state's primary revenue sources. Yet, Uzbekistani gas reserves and overall production are in decline. The Uzbekistan state is reducing its domestic supply of natural gas, refusing to reduce exports, thereby cutting local residents off from their heating and electrical supply. The Uzbek government is now relying on coal to sustain its domestic grid. Despite the drop in production, the oil and gas sector is one of the largest sources of pollution in the country and the largest source of greenhouse gas (GHG) emissions. This situation is clear from data from Uzbekneftegaz facilities in the Dengizukul region, which flare gas and store exposed pollutants.

Although Uzbekistan has signed or is party to several international agreements to protect the environment and reduce emissions, GHG emissions have only increased since 1990. Barring a few companies such as LUKOIL that voluntarily publish environmental impact data, the public has no access to information on the status of the environment or the impact of companies such as CNPC and Uzbekneftegaz.

TURKMENISTAN

Turkmenistan reveals the strongest Chinese influence. Chinese companies operate in the country's most profitable gas fields, are the single largest investors in the Turkmen gas market, and receive major loans and investments. Indeed, Turkmenistan is in a "gas trap." Turkmenistan is heavily indebted to China, so much so that China allows direct gas transfers to pay its loans. Declining gas prices and the alienation of its former export partners have led to massive budget shortfalls. As a result, domestic subsidies have ended and prices of basic goods have inflated. Turkmenistan is limited in its ability to increase its exports due to high production costs and the limited capacity of the Central Asia Gas pipeline, which is mainly owned and operated by CNPC.

The oil and gas industry is one of Turkmenistan's primary sources of pollution and the single largest source of GHG emissions. Sulfur dioxide, along with gas flaring and discarded emissions, is the main source of water and soil pollution, which severely impacts the huge Karakum desert. Although Turkmenistan is a signatory and party to numerous international agreements on environmental regulation and protection, GHG emissions have increased since 2004.

This information dearth is also due to Turkmenistan's effectual NGO ban and because companies such as CNPC are not required to publish any data.

CONCLUSION

In violation of local laws and international agreements, state authorities and Chinese companies deny Central Asians access to relevant information and decision-making processes. These actors' impact on the environment directly impacts society, the economy, and health of the local and national communities, as well as the region. Corporate and state actors in Central Asia, along with their international counterparts, must adhere to the Paris Agreement and other environmental and human rights conventions, reduce GHG emissions, and commit to a sustainable energy future.



CHAPTER 1

CHINA AND CENTRAL ASIA ENERGY COOPERATION

Growing energy demands push China to seek outside hydrocarbon sources. Central Asia becomes a key source of raw materials and energy, as well as a transit region for energy supply via the Caspian and Persian Gulf.

China and Central Asia Energy Cooperation

Growing energy demands push China to seek outside hydrocarbon sources. Central Asia becomes a key source of raw materials and energy, as well as a transit region for energy supply via the Caspian and Persian Gulf.

China is now a key global economic center. The country's economic development, with continuing industrialization and urbanization, requires enormous amounts of energy. China lacks sufficient energy resources and increasingly is involved in global competition for fossil fuel access.

Chinese oil companies first entered the global market in 1993 by investing in oil exploration and development projects.¹ In 2004, the Chinese government ruled that energy was a strategic priority and adopted an industrial development program until 2020. One program objective was to strengthen international cooperation in the energy sector to facilitate access to foreign oil and gas resources.²

Since then, oil and gas imports to China have increased each year. In 2017, China overtook the United States as the world's largest oil importer. In 2018, China became the world's top natural gas importer,³ when its oil imports increased by over 10% in one year, reaching 461.9 million tons or 70% of China's total oil consumption.⁴

In that same year, China's pipeline and liquefied natural gas imports rose by nearly 32% from 2017 to reach 124.7 billion cubic meters (bcm),⁵ or 44% of China's domestic demand.⁶

In 2020, China significantly increased imports of oil (542.39 million tons, by 7.3%) and natural gas (101.66 million tons, by 5.3%) compared to 2019, despite the impacts of the coronavirus pandemic, taking advantage

461.9
million tons

China's oil imports (2018)

70% of the country's total
oil consumption

¹ History and Achievements of Chinese Oil China Oil & Gas: 'Companies' Foreign Cooperation', China National Petroleum Corporation Economics and Technology Research Institute. No. 3, 2017

² Ли Чуаньсюнь, «Энергетическая стратегия Китая на период до 2020 г.», Таможенная политика России на Дальнем Востоке, №1(46)/2009, <https://cyberleninka.ru/article/n/energeticheskaya-strategiya-kitaya-na-period-do-2020-g>, на 06.05.2020

³ Андрей Карабьянц, «Спрос на нефть и газ в Китае растет, несмотря на замедление экономического роста», ПРАЙМ, 23.01.2019, https://1prime.ru/state_regulation/20190123/829640424.html

⁴ Ibid

⁵ Ibid

⁶ Дмитрий Семушин, «Жажда нефти Китая и стратегическое противоборство с США за коммуникации», EurAsia Daily, 04.07.2019, <https://eadaily.com/ru/news/2019/07/04/zhazhda-nefti-kitaya-i-strategicheskoe-protivoborstvo-s-ssha-za-kommunikacii>

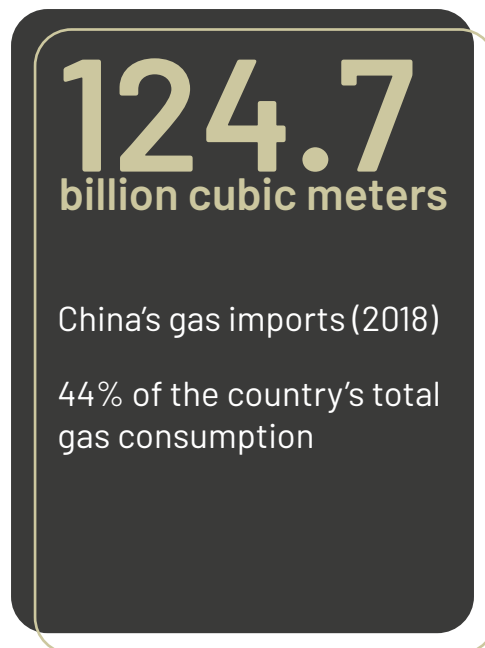
of the collapse in oil prices.⁷ The upward trend in imports of hydrocarbons to China continued in 2021.⁸

According to the International Energy Agency (IEA), by 2035 China will increase its domestic reliance on oil to some 80% and on natural gas to 46%.⁹

Increased reliance on gas seeks to phase out industrial and household use of coal to reduce air pollution. From 2016 to 2018, the cost of these policies amounted to approximately \$350 billion, or about 4.2% of the country's total financial spending.¹⁰

China meets its growing energy through investments in oil and gas in over 40 countries, mainly in the Persian Gulf, plus Africa, Russia, and Central Asia.¹¹ China is the largest state investor in the global fossil fuel industry, providing annually US\$20.2 billion for oil and gas and \$4.4 billion for coal, according to a recent report on G20 finances.¹²

Most oil and gas imports to China rely on maritime transportation. In 2018, some 78% of oil and 16% of gas imports came to China through the Strait of Malacca and the South China Sea. Maritime transportation is a strategic but vulnerable aspect of China's energy imports.¹³ Faced with the growing domestic energy demand and the vulnerability of sea transport, Chinese officials search for new energy imports and supply routes - mainly in nearby countries.



⁷ Е. Алифорова, «Китай в 2020 г. увеличил импорт нефти на 7%, газа - на 5%», Neftegaz.RU, 14.01.2021, <https://neftgaz.ru/news/finance/659188-kitay-v-2020-g-uvelichil-import-nefti-na-7-gaza-na-5/>

⁸ А. Чижевский, «Добыча нефти в Китае за 4 месяца 2021 г. выросла на 1,9%, газа - на 11,6%. Но и импорт растёт», Neftegaz.RU, 24.05.2021, <https://neftgaz.ru/news/dobycha/681445-dobycha-nefti-v-kitae-za-4-mesyatsa-2021-g-vyroslo-na-1-9-gaza-na-11-6-no-i-import-rastet/>

⁹ Ibid.

¹⁰ «Финансовые расходы Китая на охрану окружающей среды стремительно растут», СИНХУА Новости, 26.12.2019, http://russian.news.cn/2019-12/26/c_138659326.htm

¹¹ Дмитрий Семушин, «Жажда нефти Китая и стратегическое противоборство с США за коммуникации», EurAsia Daily, 04.07.2019, <https://easdaily.com/ru/news/2019/07/04/zhazhda-nefti-kitaya-i-strategicheskoe-protivoborstvo-s-ssha-za-kommunikacii>

¹² Still Digging: G20 Governments Continue to Finance the Climate Crisis, May 2020 (<http://priceofoil.org/content/uploads/2020/05/G20-Still-Digging.pdf>)

¹³ Ibid.

STRATEGIC RESERVE AND CORE OF THE BELT AND ROAD INITIATIVE

China views Central Asia as a source of raw materials and energy supply, and as a transit zone via the Caspian and the Persian Gulf. Since China's 1997 entry into the Central Asian energy sector, China has become the region's main trade partner and investor. Today Central Asia comprises 28% of Chinese natural gas imports and represents 15% of domestic consumption. These factors decrease the possible future economic diversification in Central Asia.

The Central Asian region could not only alleviate China's growing domestic need for hydrocarbons but also diversify its energy transportation system via onshore and transboundary pipelines from Central Asia to China.

Therefore China views Central Asia as its strategic hydrocarbon reserve and for oil and gas transit routes from the Caspian Sea – and eventually from the Persian Gulf – to China.¹⁴ Among Central Asian countries, China particularly is interested in Kazakhstan, Turkmenistan, and Uzbekistan.

In 1997, China's biggest oil parastatal entity, the China National Petroleum Corporation (CNPC), cemented three key international oil and gas exploration and production deals,¹⁵ including the Aktobe project in Kazakhstan. Those energy agreements marked CNPC's first entry into Central Asia's oil and gas production market.

In 2018, Kazakhstan, Turkmenistan, and Uzbekistan supplied about 28% of natural gas imports to China via the Turkmenistan-Uzbekistan-Kazakhstan-China gas pipeline commissioned in late 2009.¹⁶ The three branches of this pipeline have the annual design capacity of 55 bcm.¹⁷ In 2019, China imported over 47.9 bcm of natural gas via the Turkmenistan-China pipeline.¹⁸ During its decade-long operation, more than 300 bcm were supplied to China via this pipeline; over 80% from Turkmenistan.¹⁹ As of early 2020, Central Asian natural gas represented over 15% of China's domestic consumption.²⁰ In 2020, against the backdrop of the coronavirus epidemic, China

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¹⁴ Руслан Изимов, «Глобальная энергетическая политика Китая и место в ней Центральной Азии», Сауран, 18.11.2014, <http://cc-sauran.kz/rubriki/economika/107-globalnaya-energeticheskaya-politika-kitaya.html>

¹⁵ CNPC's two other major overseas oil and gas investments are the Khartoum block 1/2/4 blocks in Sudan and Maracaibo land lake project in Venezuela (<http://csr.cnpc.com.cn/cnpccsr/xhtml/PageAssets/lmbg2012-en.pdf>)

¹⁶ Дмитрий Семущин, «Жаждa нефти Китая и стратегическое противоборство с США за коммуникации», EurAsia Daily, 04.07.2019, <https://easdaily.com/ru/news/2019/07/04/zhazhda-nefti-kitaya-i-strategicheskoe-protivoborstvo-s-ssha-za-kommunikacii>

¹⁷ Ibid.

¹⁸ «Китай в увеличил импорт газа из Центральной Азии», PETROCOUNCIL.KZ, 16.01.2020, <https://petrocouncil.kz/kitaj-v-uvelichil-import-gaza-iz-czentralnoj-azii/>

¹⁹ Ibid.

²⁰ «По газопроводу Китай-Центральная Азия перекачено более 300 млрд кубометров газа», СИНЬХУА, 28.02.2020, http://russian.news.cn/2020-02/28/c_138828120.htm



XINJIANG GOBI OIL FIELD © ADOBE STOCK

reduced the volume of purchased gas in Central Asia, and by the end of the year, the region supplied approximately 39 billion cubic meters of natural gas to the PRC.²¹

Today, China is the key investor and the main foreign trade partner in Central Asian economies.²² The total annual trade between China and Central Asia has grown 60-fold from some \$500 million in 1992 to \$30 billion.²³ In 2020, in spite of the pandemic, regional trade with China amounted to \$38.6 billion.²⁴ By comparison, the trade turnover between Russia and Central Asia totaled \$28 billion in 2020.²⁵

According to Konstantin Syroezhkin, a leading sinologist in Central Asia, China has always viewed the region as a source of natural resources, a transit zone, and a market for Chinese products. Therefore, Chinese investments in Central Asia are mainly in infrastructure but not in the

²¹ «China Imports Nearly 2.8 bcm of Turkmen Gas in January», BUSINESS TURKMENISTAN, 23.03.2021, <https://business.com.tm/post/6826/china-imports-nearly-28-bcm-of-turkmen-gas-in-january>

²² Константин Сыроежкин, «Визит Си Цзиньпина в Центральную Азию: ожидания и проблемы», Carnegie Endowment, 04.09.2013, <http://carnegieendowment.org/2013/09/04/ru-pub-52845>

²³ Еркин Байдаров, «Центральная Азия нуждается в новых подходах к экономической интеграции – эксперт», Евразия Эксперт, 02.01.2019, <https://eurasia.expert/tsentralnaya-aziya-nuzhdaetsya-v-novykh-podkhodakh/>

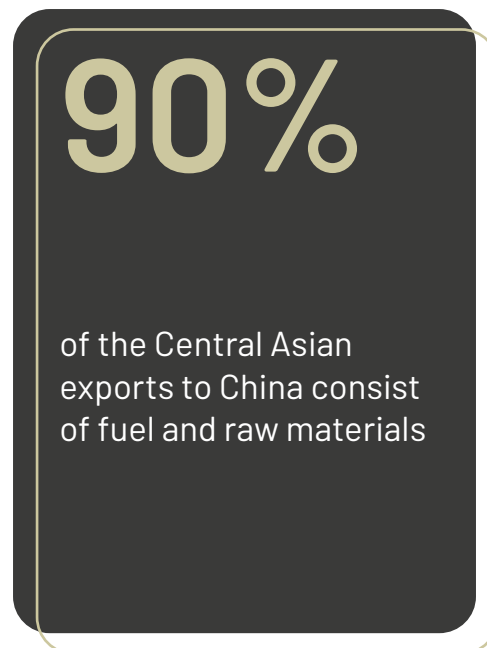
²⁴ Рашид Алимов, «Китай и Центральная Азия: новый формат партнерства открывает дополнительные возможности для сотрудничества», ASIA-Plus, 14.05.2021, <https://asiaplus.tj.info/ru/news/opinion/20210514/kitai-i-tsentralnaya-aziya-novii-format-partnerstva-otkrivaet-dopolnitelnie-vozmozhnosti-dlya-sotrudnichestva>

²⁵ «О внешней торговле в 2020 году», Федеральная служба государственной статистики РФ, 08.10.2021, https://gks.ru/bgd/free/b04_03/lssWWW.exe/Stg/d02/32.htm

real sector development,²⁶ and 90% of the region's exports to China consist of fuel and raw materials.²⁷ Indeed, China's growing demand for natural resources is a major part of Central Asia's continuing transformation into a "raw-material appendage" of Chinese as well as Western economies. Globally non-competitive and the neighbor of an economic giant such as China, Central Asian countries have very little chance of diversifying their economies beyond the raw materials sector.²⁸

THE BELT AND ROAD INITIATIVE: CHINA'S CENTRAL ASIA STRATEGY

The Belt and Road Initiative (BRI) is a resource tapping program. BRI objectives in Central Asia: gain access to regional resources, encourage Central Asian importers of Chinese products, and develop the region into a transit zone.



More recently, the Belt and Road Initiative (BRI), a global infrastructure development program adopted by China in 2013, continues on the same 'resource tapping' trajectory and puts Central Asia on the BRI map for the following strategic objectives:

- to gain access to resources by developing regional oil, gas, and mineral reserves;
- to increase trade in manufactured goods and promote Chinese goods in the region, and use transit routes via Central Asia to European and Middle Eastern markets;
- to develop new transcontinental transport corridors through Central Asia.²⁹

BRI is focused on promoting intensive development of China's western regions, in particular the Xinjiang Uygur Autonomous Region (XUAR),³⁰ which now accounts for 75% of the trade turnover between Kazakhstan and China.³¹

Given China's increasing dependence on energy imports, its role in the oil and gas sectors of Kazakhstan, Turkmenistan, and Uzbekistan will still grow. China's energy sector cooperation with each of these countries has its own characteristics. These features, plus the social and

²⁶ Константин Сыроежкин, «Проект «Экономический пояс Шёлкового пути» в сложном пространстве Центральной Азии», *Контуры глобальных трансформаций*, Выпуск 6, том 9, 2016, <https://cyberleninka.ru/article/n/proekt-ekonomicheskij-poyas-shyolkovogo-puti-v-slozhnom-prostranstve-tsentralnoy-azii>, на 07.05.2020

²⁷ Владимир Матвеев, «Центральная Азия – ядро Экономического пояса Шелкового пути», *Сборник «Новый Шёлковый путь и его значение для России»*, ИДВ РАН, 2016.

²⁸ Константин Сыроежкин, «Государство всегда имеет возможность поставить на место любого иностранного инвестора», *KazService*, октябрь-декабрь 2017, http://www.kazservice.kz/images/KS_22.pdf, на 07.05.2020

²⁹ М.Титаренко, А.Ларин, В.Матвеев, «Концепция Экономического пояса Шёлкового пути и интересы России», *Вестник МГУ*, Сер.25, №1, 2015, <https://cyberleninka.ru/article/n/kontseptsiya-ekonomicheskogo-poyasa-shelkovogo-puti-i-interesy-rossii/viewer>, на 07.05.2020

³⁰ Константин Сыроежкин, «Проект «Экономический пояс Шёлкового пути» в сложном пространстве Центральной Азии», *Контуры глобальных трансформаций*, Выпуск 6, том 9, 2016, <https://cyberleninka.ru/article/v/proekt-ekonomicheskij-poyas-shyolkovogo-puti-v-slozhnom-prostranstve-tsentralnoy-azii>, на 07.05.2020

³¹ Светлана Кожирова, «Обострение казахского вопроса в Китае связано с активной урбанизацией в СУАР», *ИАЦ МГУ*, 25.10.2018, <https://ia-centr.ru/experts/zhanar-tulindinova/kozhirova-obostrenie-kazakhskogo-voprosa-v-kitae-svyazano-s-aktivnoy-urbanizatsiy-v-suar/>

environmental impacts of Chinese investments in the oil and gas sectors in these three countries, are discussed below.

THE GREENING OF THE BELT AND ROAD

Massive infrastructure and extraction projects are linked with the current climate crisis, resulting in international criticism of the BRI and similar Chinese projects. China has responded to such criticism by adopting secret environmental impact assessments and sustainability principles.

The climate emergency and the alarming loss of the planet's biodiversity are closely related to ill-conceived large-scale infrastructure projects. Such projects include fossil fuel extraction; pipelines and power plants that will generate greenhouse gas emissions for decades; resource extraction projects; and export corridors that slice through remaining pristine watersheds and grasslands. In addition to these global consequences, local communities are often severely affected by pollution, loss of livelihoods, and a lack of access to clean air and drinking water.

In recent years, China, as it pursues the role of global infrastructure leader, has responded to growing international criticism of Chinese overseas infrastructure projects: that as it addresses the environmental and social measures, it denies access to information and decision making.

Chinese state financial institutions involved in financing the BRI projects are committed to the 'Green Investment Principles for the Belt and Road'.³² They pledged to include sustainability in corporate governance, and maintain awareness of potential impacts of investments and operations on climate, environment, and society in the BRI region.

Similarly, the 'Green Credit Directive' prescribes specific key performance indicators: banks are required to assess loans for environmental and social risk prior to financing, monitor environmental and social impacts during project implementation, and ensure that clients implement remedial environmental and social management plans during and after project completion.³³

Despite these reporting and assessment tools, actual implementation records are confidential and there is no public data on specific loans or projects.

In 2017, Chinese government regulatory agencies issued an advisory document, "Guidance on Promoting a Green Belt and Road." This document recognized the challenges faced by Chinese companies in overseas infrastructure projects and urged them to adopt better environmental and social standards. Specifically, the document states that "We (the Chinese government) will use the unique advantages of policy-based financial institutions in guiding and channeling the funds of various parties to jointly support the green 'Belt and Road' Initiative."³⁴

In September 2020, China declared it planned to achieve carbon neutrality in 40 years. Under the official plan, by 2060 China will reduce oil consumption by 65% and natural gas by 75%.

³² <http://www.gfip.org.cn/public/ueditor/php/upload/file/20181201/1543598665672890.pdf>

³³ https://zfs.mee.gov.cn/hjj/gjfbdjzcx/sxdzc/201507/t20150716_306812.shtml

³⁴ http://english.mee.gov.cn/Resources/Policies/policies/Frameworkp1/201706/t20170628_416864.shtml

At the 75th session of the UN General Assembly in September 2020, China declared it planned to achieve carbon neutrality in 40 years. Under the official plan, by 2060 China will reduce oil consumption by 65% and natural gas by 75%.³⁵

China has already achieved impressive results in energy transition. It has become the world's largest producer of renewable energy and invested heavily in the development of new energy technologies.³⁶

The role of oil and gas in China will decline – but gradually. One should not expect that hydrocarbon supplies will sharply decrease in the near future. Therefore, cooperation between Central Asia and China will greatly depend on China's observance of its climate commitments.

³⁵ Сергей Капитонов, Темур Умаров, «Трубы сгорят? Нужно ли Китаю больше газа из России и Центральной Азии», Московский Центр Карнеги, 30.12.2020, <https://carnegie.ru/commentary/83536>

³⁶ Эдвард Чоу, «Братья не навек. Почему нефть и газ не только сближают, но и отдаляют Россию и Китай», Московский Центр Карнеги, 29.01.2021, <https://carnegie.ru/commentary/83749>



CHAPTER 2

KAZAKHSTAN

China is Kazakhstan's top trading partner and its fourth-largest investor. Chinese involvement in Kazakhstan's economy is inconsistent. There are few details on Chinese loans, indicating lack of transparency and probably corruption.

Kazakhstan

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Kazakhstan and China share a 1,000-mile border and Kazakhstan is China's largest regional trading partner. In foreign direct investment in Kazakhstan's economy, China ranks fourth after the Netherlands, the US, and Switzerland.³⁷ According to Chinese Xi Jinping, China's investments in Kazakhstan's economy over 25 years exceeded \$42.8 billion (as of 2017).³⁸ Kazakh President Kassym-Jomart Tokayev said in 2019 that China had invested some \$20 billion in Kazakhstan since the latter became independent.³⁹

According to the American Enterprise Institute, most Chinese investment – \$24.28 billion over 15 years – has gone to Kazakhstan's energy sector (as of 2019).⁴⁰ The Central Asia Data-Gathering and Analysis Team (CADGAT) estimates that 66.7% of China's BRI-related investments in Central Asia between 2013 and 2018 went to Kazakhstan and totaled \$90.86 billion, including \$37.78 billion in mineral and petroleum exploration and development.⁴¹ Yet, data on China's role in the Kazakh economy is notoriously inconsistent, reflecting a general lack of transparency in Kazakh-Chinese relations.

According to Kazakh analyst Syroezhkin, China's total investment in Kazakhstan's economy exceeded \$70.6 billion in 2016.⁴² He notes, however, that while Kazakhstan has increased its borrowing from China, there is little data on the terms, conditions, and potential use of such loans, probably indicating



³⁷ Топ-10 стран-инвесторов, Комитет по инвестициям МИД РК, <https://www.gov.kz/memleket/entities/invest/activities/1341?lang=ru>, на 07.05.2020

³⁸ «Общий объем инвестиций Китая в экономику Казахстана превысил \$42,8 млрд», Капитал, 07.06.2017, <https://kapital.kz/economic/60408/obshchiy-ob-yem-investitsiy-kitaya-v-ekonomiku-kazakhstana-prevysil-42-8-mlrd.html>

³⁹ Тамара Абубакарова, «Токаев: Огромные масштабы китайского рынка открывают Казахстану возможности для экспорта», inform БЮРО, 11.09.2019, <https://informburo.kz/novosti/tokaev-ogromnye-masshtaby-kitayskogo-rynka-otkryvayut-kazahstanu-vozmozhnosti-dlya-eksporta-95438.html>

⁴⁰ Алина Есеналина, «Как китайские инвесторы финансируют экономику Казахстана. Инфографика», LS, 24.07.2019, <https://lsm.kz/investicii-kitaya>

⁴¹ F.Aminjonov, A.Abylkasymova, A.Aimée, B.Eshchanov, D.Moldokanov, I.Overland, R.Vakulchuk, BRI in Central Asia: Overview of Chinese Projects, 2019, <http://osce-academy.net/en/research/cadgat/>, на 07.05.2020

⁴² Константин Сыроежкин, «Казахстан и Китай: анализ последних договоренностей», CABAR.asia, 4.04.2021, <https://cabar.asia/ru/konstantin-syroezhkin-kazakhstan-i-kitaj-analiz-poslednih-dogovorennoстей>

corruption in such bilateral relations.⁴³

China's BRI plans include projects in Kazakhstan's metallurgy, oil and gas processing, chemical industry, mechanical engineering, energy, light industry, agricultural processing, plus transport and logistics sectors. Until recently, the specific enterprises involved and details on the industrial and investment program between Kazakhstan and China were kept secret from Kazakhstan's population.⁴⁴

For several years, the governments of Kazakhstan and China have been negotiating on 51 (then 55) projects worth a total of \$27 billion.⁴⁵ The Kazakhstan public is particularly concerned about China's plans to relocate to Kazakhstan some production facilities – mainly polluting and environmentally harmful.⁴⁶ This issue was a major cause of the spring 2016 protests against legal amendments to allow foreigners, primarily Chinese citizens, to rent agricultural land in Kazakhstan for 25 years.⁴⁷

Such lack of transparency adds to public discontent in Kazakhstan about China's presence in their country, fueling a new wave of sinophobia.⁴⁸ In early September 2019, protests broke out in several Kazakhstani cities over plans to implement 55 Kazakh-Chinese projects.⁴⁹ Finally, in September 2019, largely due to protests sweeping the country and to advocacy efforts of Kazakhstan's environmentalists, in which Crude Accountability took part, the Kazakhstan's government at last published general information on Kazakhstani-Chinese cooperation and a list of projects involved.⁵⁰ Still, virtually all Chinese investments in Kazakhstan, including the actual operations involved, remain non-transparent to the Kazakhstani public.

The Kazakhstan public is particularly concerned about China's plans to relocate to Kazakhstan some production facilities – mainly polluting and environmentally harmful.

⁴³ Ахмед Сейидов, «Пекин купил нас с потрохами. Почему в Средней Азии боятся Китая», РИА Новости, 16.09.2018, <https://ria.ru/20180916/1528567677.html>

⁴⁴ Константин Сыроежкин, «Казakhstan и Китай: анализ последних договоренностей», Cabar.Asia, 04.04.2021, <https://cabar.asia/ru/konstantin-syroezhkin-kazakhstan-i-kitaj-analiz-poslednih-dogovorennostej>

⁴⁵ Жанболат Мамышев, «Казakhstan постарается понравиться Китаю», inbusiness.kz, 12.06.2017, <https://inbusiness.kz/ru/news/kazakhstan-postaraetsya-ponravitsya-kitayu>

⁴⁶ Константин Сыроежкин, «Казakhstan и Китай: анализ последних договоренностей», Cabar.Asia, 04.04.2021, <https://cabar.asia/ru/konstantin-syroezhkin-kazakhstan-i-kitaj-analiz-poslednih-dogovorennostej>

⁴⁷ Абдужалил Абдурасулов, «Страх перед Китаем вывел людей в Казахстане на улицы», BBC, 29.04.2016, https://www.bbc.com/russian/international/2016/04/160429_kazakhstan_land_rent_protests

⁴⁸ Дмитрий Покидаев, «Эксперт: «Получая китайские кредиты, нужно четко осознавать, что их придется возвращать», КУРСИВ, 20.09.2018, <https://kursiv.kz/news/mirovaya-ekonomika/2018-09/ekspert-poluchaya-kitayskie-kredity-nuzhno-chetko-osoznavat-cto>

⁴⁹ Сания Тойкен, «В трех городах поддержали жанаозенцев, выступивших «против китайских заводов», Радио Азаттык, 03.09.2019, <https://rus.azattyq.org/a/30144369.html>

⁵⁰ «Общественный доступ к списку казахстанско-китайских инвестпроектов открыт», Ливень, 03.10.2019, <https://livingasia.online/2019/10/03/obshhestvennyi-dostup-k-spisku-kazhastansko-kitajskih-investproektov-otkryt/>

CHINA IN KAZAKHSTAN'S OIL AND GAS SECTOR

The Kazakhstani economy is heavily reliant on the oil and gas sector, thus China is in a strategic position. Bilateral cooperation between China and Kazakhstan results in China's three primary energy companies operating in most major oil and gas regions.

Growing concern over Chinese influence has led to a pushback from some members of Kazakhstan's parliament and from the communities. Despite such pushback, China continues to view Kazakhstan as vital to its BRI project.

A controversial, painful, and longstanding issue for Kazakhstan is China's presence in its oil and gas sector.

Cooperation in the oil and gas industry lies at the heart of the strategic partnership between Kazakhstan and China, as was declared in all official documents on bilateral cooperation issued before 2013. In 2013, in addition to expanded cooperation in the oil and gas sector, China's BRI and Kazakhstan's *Nurly Zhol* program⁵¹ were paired to support infrastructure development and projects in other sectors of Kazakhstan's economy and society.⁵²



OIL REFINERY, CNPC COMPANY © ADOBE STOCK

⁵¹ Nurly Zhol is a state program to modernize and improve transportation, industry, energy and public utility infrastructures, and education and civil services in Kazakhstan. The Nurly Zhol program was announced by then-president Nazarbayev in 2014 //europe-china.kz/nurly-zhol

⁵² Константин Сыроежкин. «Государство всегда имеет возможность поставить на место любого иностранного инвестора», KazService, октябрь-декабрь 2017, http://www.kazservice.kz/images/KS_22.pdf, на 07.05.2020

China's presence in Kazakhstan's oil and gas industry began in 1997 when China National Petroleum Corporation (CNPC) purchased AktobeMunaiGaz. In 2003, after a five-year lull, China Petroleum & Chemical Corporation (SINOPEC) and China National Offshore Oil Corporation (CNOOC) attempted to buy the British Gas Group's stake in Kashagan

oil field development, but the deal was blocked by other project participants. In 2003, CNPC signed a major deal to develop the North Buzachi field, and joint Kazakh-Chinese oil and gas projects in Kazakhstan have been increasing rapidly since then.⁵³ In 2013, CNPC acquired an 8.33% stake in the Kashagan project, fulfilling China's dream of accessing Caspian Sea offshore reserves.⁵⁴

Currently, China has a stake in over 20 oil and gas companies in Kazakhstan, ranging from 8.33% to 100%. Chinese companies operate in all of the country's major oil and gas regions, including Aktobe, Atyrau, Kyzylorda, and Mangystau.⁵⁵ Among Chinese companies in Kazakhstan's oil and gas sector, the largest three – CNPC, SINOPEC, and China International Trust and Investment Corporation (CITIC) – carry out most of the hydrocarbon production and transportation to China. Other Chinese operators are either subsidiaries of the major three companies or are small independent firms.⁵⁶

China National Petroleum Corporation (CNPC) is a major foreign investor in Kazakhstan's oil and gas industry, and pursues China's interests. Currently, CNPC owns stakes in the largest Kazakhstan-Chinese joint ventures, including CNPC AktobeMunaiGaz (85.42%), MangistauMunaiGaz (50%), Buzachi Operating Ltd. (50%), and PetroKazakhstan Kumkol Resources (67%).⁵⁷ CNPC's main operation in Kazakhstan is CNPC AktobeMunaiGaz in the Aktobe region, which the Chinese government views as the main BRI project in Kazakhstan.⁵⁸ In addition, CNPC is constructing the Kazakhstan-China pipelines, such as the Atasu-Alashankou and Kenkiyak-Atyrau; Phases I and II of the Kazakhstan-China gas pipeline, and builds oil and gas storage sites and transportation facilities. CNPC's major purchase in Kazakhstan was PetroKazakhstan in 2005. Thus, CNPC became the owner of Kazakhstan's largest refinery in Shymkent plus a network of gas stations throughout the country.⁵⁹

China Petrochemical Corporation (SINOPEC), the second-largest Chinese oil and gas company, owns shares in such Kazakhstani oil-producing companies as Sazankurak (100%), Pricaspian Petroleum Company (100%), and ADAI Petroleum Company (50%) operating in the Atyrau

In 2018, oil and gas companies contributed 87% of taxes paid by Kazakhstan's 30 largest taxpayers. Chinese oil companies contributed some 18% of all taxes in Kazakhstan.

⁵³ Константин Сыроежкин, «Присутствие Китая в энергетическом секторе Центральной Азии», Центральная Азия и Кавказ, том 15, №1, 2012, <https://cyberleninka.ru/article/n/prisutstvie-kitaya-v-energeticheskom-sektore-tsentralnoy-azii>, на 10.05.2020

⁵⁴ Константин Сыроежкин, «Государство всегда имеет возможность поставить на место любого иностранного инвестора», KazService, октябрь-декабрь 2017, http://www.kazservice.kz/images/KS_22.pdf, на 07.05.2020

⁵⁵ Константин Сыроежкин, «Нужно ли Казахстану бояться Китая: мифы и фобии двусторонних отношений», IWEP, Астана-Алматы 2014, сс.326-357.

⁵⁶ Руслан Изимов, «Китайские ТНК в казахстанской «нефтянке», Region, 04.04.2021, http://www.region.kg/index.php?option=com_content&view=article&id=1125:---lr&catid=6:ekonomika&Itemid=11

⁵⁷ Казахстан, CNPC, http://www.cnpc.com.cn/ru/hskst/hskst_index.shtml, на 10.05.2020

⁵⁸ Самал Ендибаева, «О своем видении инициативы «Один пояс – один путь» рассказал гендиректор АО «СНПС Актобемунайгаз», CNPC-AMG, 04.04.2021, http://www.cnpc-amg.kz/?p=smi_61

⁵⁹ Казахстан, CNPC, http://www.cnpc.com.cn/ru/hskst/hskst_index.shtml, на 10.05.2020

region. China International Trust Investment Corporation (CITIC), one of China's largest public investment corporations, has a 50% stake in Karazhanbasmunai oil company in the Mangystau region.⁶⁰

As of 2012, Chinese companies in Kazakhstan owned some 24% of oil production and about 13% of natural gas production.⁶¹ Today, small volumes of hydrocarbons are transported directly from Kazakhstan to China. Thus, in 2018, ten million of 11.4 million tons of oil transported via the Kazakhstan-China oil pipeline was Russian oil transit.⁶² In 2018, 5.8 bcm of natural gas was shipped to China via the Central Asian gas pipeline.⁶³ There are plans to increase natural gas exports from Kazakhstan to China to reach 10 bcm in the coming years.⁶⁴

Since oil and gas is the main contributor to Kazakhstan's budget China's role in this key sector is particularly important. In 2018, oil and gas companies contributed 87% of taxes paid by Kazakhstan's 30 largest taxpayers; Chinese oil companies contributed some 18% of all taxes in Kazakhstan.⁶⁵

After China purchased PetroKazakhstan, members of Kazakhstan's Parliament expressed concern that the major Chinese presence in the country's oil and gas sector constituted a threat to national security.⁶⁶ From time to time, various public figures in Kazakhstan have published open letters to their leaders demanding that strategically important oil and gas facilities and fields controlled by China should be returned to ownership by Kazakhstan.⁶⁷

According to Syroezhkin, critics of Chinese presence in the sector omit several key points:

- China's position in Kazakhstan's oil and gas sector is less than the US and European countries.⁶⁸
- China is not involved in two of Kazakhstan's most important oil and gas projects: the Tengiz and Karachaganak fields.⁶⁹
- China's share in Kazakhstan's balance and recoverable oil reserves stands at is 5.4%. A much larger portion of these reserves (36.9%) is controlled by the United States.⁷⁰
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⁶⁰ Руслан Изимов, «Китайские ТНК в казахстанской «нефтянке», Region, 04.04.2021, http://www.region.kg/index.php?option=com_content&view=article&id=1125:----lr&catid=6:ekonomika&Itemid=11

⁶¹ Константин Сыроежкин, «Нужно ли Казахстану бояться Китая: мифы и фобии двухсторонних отношений», IWEP, Астана-Алматы 2014, сс.326-357.

⁶² Екатерина Журавлева, «Казakhstan увеличит экспорт нефти в Китай», LS, 10.07.2019, <https://lsm.kz/eksport-nefti-v-kitaj>

⁶³ Алишер Максудов, «В первой половине этого года газопровод Китай — Центральная Азия поставил на китайский рынок более 23 миллиардов кубометров природного газа», ZONAKz, 08.08.2019, <https://zonakz.net/2019/08/08/v-pervoj-pолоvine-etogo-goda-gazoprovod-kitaj-centralnaya-aziya-postavil-na-kitajskij-rynok-bolee-23-milliardov-kubometrov-prirodnogo-gaza/>

⁶⁴ «Казakhstan увеличил объемы экспорта газа в Китай в 2019 году до 7,5 млрд кубометров», inbusiness.kz, 19.12.2019, <https://inbusiness.kz/ru/last/kazakhstan-uvlechil-obemy-eksporta-gaza-v-kitaj-v-2019-godu-do-7-5-mlrd-kubometrov>

⁶⁵ Асель Мусалирова, «Кормильцы Казахстана: 30 крупнейших налогоплательщиков в 2018 году», КУПСИБ, 14.03.2019, <https://kursiv.kz/news/tendencii-i-issledovaniya/2019-03/kormilcy-kazakhstana-30-krupneyshikh-nalogoplatelshchikov-v>

⁶⁶ Константин Сыроежкин. «Государство всегда имеет возможность поставить на место любого иностранного инвестора», KazService, октябрь-декабрь 2017, http://www.kazservice.kz/images/KS_22.pdf, на 07.05.2020

⁶⁷ Жанар Тулиндинова, «Куда приводят мечты: в Казахстане призывают национализировать принадлежащие китайцам объекты нефтянки», ИАЦ МГУ, 08.08.2018, <https://ia-centr.ru/experts/zhanar-tulindinova/kuda-privodyat-mechty-v-kazakhstane-prizyvayut-natsionalizirovat-prinadlezhashchie-kitajtsam-obekty/>

⁶⁸ Константин Сыроежкин, «Нужно ли Казахстану бояться Китая: мифы и фобии двухсторонних отношений», IWEP, Астана-Алматы 2014, сс.326-357

⁶⁹ Асель Мусалирова, «Кормильцы Казахстана: 30 крупнейших налогоплательщиков в 2018 году», КУПСИБ, 14.03.2019, <https://kursiv.kz/news/tendencii-i-issledovaniya/2019-03/kormilcy-kazakhstana-30-krupneyshikh-nalogoplatelshchikov-v>

⁷⁰ Константин Сыроежкин, «Нужно ли Казахстану бояться Китая: мифы и фобии двухсторонних отношений», IWEP, Астана-Алматы 2014, сс.326-357.



PETROKAZAKHSTAN KUMKOL RESOURCES OFFICE IN KYZYLORDA, KAZAKHSTAN © RAUL UPOROV

- Most fields acquired by China are older with long production records. Therefore, their share in the country's total oil and gas output will decrease over time.⁷¹ This is confirmed by a recent assessment conducted by oil companies in the country, according to which China now accounts for 17.7% of the oil produced, and it ranks third, followed by Kazakhstan (29.5%) and the United States (29.5%).⁷²

- China acquired almost all its oil and gas assets in Kazakhstan through open tenders; joint ventures employ 97%–98% Kazakhstani citizens.

- Since Chinese companies operate under the general tax law rather than production sharing agreements (PSAs), such as for the Tengiz, Karachaganak, and Kashagan projects, Kazakhstan's tax authorities are less likely to question their compliance.⁷³

In the 'Yellow Book' on China's policy on Central Asia, China's Academy of Social Sciences (CASS) stressed that Kazakhstan would still play a major role in the BRI strategy through regional connectivity and infrastructure projects, despite continuing public criticism. Oil price fluctuations would affect Kazakhstan's economy.⁷⁴

Despite their taxpayer status, Chinese companies often are less concerned about protecting environmental protection and local community engagement than other multinational corporations in Kazakhstan's oil and gas sector.

⁷¹ Ibid

⁷² Бекзада Ишекенова, «Кто добывает казахстанскую нефть», LS, 25.08.2020, <https://lsm.kz/kto-dobyvaet-kazahstanskuyu-neft>

⁷³ Константин Сыроежкин, «Присутствие Китая в энергетическом секторе Центральной Азии», Центральная Азия и Кавказ, том 15, №1, 2012, <https://cyberleninka.ru/article/n/prisutstvie-kitaya-v-energeticheskom-sektore-tsentralnoy-azii>, на 10.05.2020

⁷⁴ Yellow Book: China's Outlook on Central Asia. China's Academy of Social Sciences (2018-2020 editions)

Environmental Impact of Oil and Gas Operations

Emphasis on the oil and gas sector, inadequate supervision by Kazakhstan's authorities, and lax environmental monitoring have led to deteriorating environmental conditions. Despite Kazakhstan's current commitments to environmental protection and public participation, environmental conditions and public health have declined.

Kazakhstan is facing numerous environmental problems inherent in natural resource extraction. Lacking consistent environmental policy, the country's nature protection priorities are inconsistent and its environmental regulation is inadequate, resulting in worsened environmental conditions and quality of life. Even Kazakhstan's officials admit that "the problem of environmental pollution is serious – and in some locations, really dangerous – and getting worse."⁷⁵

A critical part of Kazakhstan's economy – its oil and gas sector – is a major contributor to irreversible environmental impacts, especially in the country's western regions, where about 70% of the country's hydrocarbon reserves are located.⁷⁶ According to experts, the worsening environment in western Kazakhstan is caused by the harmful practices of oil and gas companies plus the poor performance of Kazakhstan's supervisory authorities. Disease rates are on the rise in local communities adjoining oil and gas fields.⁷⁷

The energy sector remains the country's main source of carbon dioxide emissions, accounting for 82.4% of all greenhouse gas (GHG) emissions between 1990 and 2015.

Gas flaring from oil and gas production is a major source of environmental pollution. Despite a three-fold reported decrease in flaring between 2006 and 2016, a huge amount of gas is still flared, with significant emissions of pollutants.⁷⁸ The energy sector remains the country's main source of carbon dioxide emissions, accounting for 82.4% of all greenhouse gas (GHG) emissions between 1990 and 2015.⁷⁹ Kazakhstan is a party to the UN Framework Convention on Climate

⁷⁵ «Социально-экологическая ситуация в Казахстане: факты и цифры», К пятому совещанию сторон Орхусской конвенции, Приложение к Вестнику «Зеленое спасение», 2014, <https://bit.ly/2OnCL6k>, на 12.05.2020

⁷⁶ Г.Булдыбаева, «Влияние нефтегазовой отрасли на социально-экономическое развитие западного региона Республики Казахстан», 2013, <https://bulletin-psyosoc.kaznu.kz/index.php/1-psy/article/download/474/325>, на 12.05.2020.

⁷⁷ Ibid.

⁷⁸ Environmental Performance Review: Kazakhstan, UNECE, Third Review, Geneva 2019. <https://www.unece.org/environmental-policy/environmental-performance-reviews/enveprpublications/environmental-performance-reviews/2019/3rd-environmental-performance-review-of-kazakhstan/docs.html>, last accessed on 12 May 2020.

⁷⁹ Ibid.



FARMER'S STEPPE FIELD CAMP BEHIND THE SHYMKENT OIL REFINERY, KAZAKHSTAN © RAUL UPOROV

Change and has ratified the Kyoto Protocol and the Paris Agreement.⁸⁰ The country exhibited major potential to decrease its footprint as a global GHG emitter, but its ongoing and intensive hydrocarbons production inhibits its ability to reach this goal.⁸¹

According to NGOs, the situation is getting worse, largely due to ineffective environmental monitoring systems; withholding of environmental information by government agencies and companies; a formalistic approach to public hearings; and lack of environmental justice since Kazakhstan's courts openly side with offenders.⁸² While Kazakhstan's authorities admit that there are problems with environmental rights, they still consider the overall situation satisfactory.⁸³

⁸⁰ Kyoto Protocol (1997) operationalizes the UN Framework Convention on Climate Change (1992) by committing industrialized countries to limit and reduce greenhouse gases (GHG) emissions and mitigate global warming. The Paris Agreement (2015) builds upon the UN Framework Convention on Climate Change to introduce mandatory measures for countries to reduce their CO₂ emissions from 2020. The Paris Agreement replaces the Kyoto Protocol.

⁸¹ Environmental Performance Review: Kazakhstan, UNECE, Third Review, Geneva 2019, <https://unece.org/environment-policy/publications/3rd-environmental-performance-review-kazakhstan>, last accessed on 12 May 2020.

⁸² Green Salvation Herald. English supplement to the Bulletin of the Ecological Society Green Salvation regarding the implementation of the Convention in Kazakhstan, 2017. https://www.unece.org/fileadmin/DAM/env/pp/mop6/NIR_2017/NGO_Reports/KZ_Green-Salvation-Herald-20171.pdf, last accessed on 14 May 2020.

⁸³ Ibid.



WELCOME SIGN AT THE ENTRANCE TO THE VILLAGE OF KENKIYAK © RAUL UPOROV

Field Observations

A Crude Accountability team visited the villages of Kenkiyak, Shubarshi, and Sarkol within the Kenkiyak field.

CNPC AktobeMunaiGaz (CNPC-AMG) is the most prominent industrial enterprise in the Aktobe region of Kazakhstan, a leader of the country's oil and gas complex, and China's oldest oil project in Kazakhstan. The company is the fifth-largest oil and the third-largest natural gas producer in Kazakhstan.⁸⁴ Fully controlled by CNPC, it exploits the Zhanazhol and Kenkiyak fields and operates the Zhanazhol oil and gas refinery.⁸⁵ Almost all its facilities are in a single location some 230 kilometers south of Aktobe.

The villages of Kenkiyak, Shubarshi, and Sarkol, with a total population of 10,000, are the largest settlements near the CNPC-AMG operations. The villages are located inside the Kenkiyak field, in development since 1959. Established soon after the field was first discovered, the

⁸⁴ «Отмечая День Независимости Казахстана», СНПС-Актобемунайгаз, 18.12.2019, http://www.cnpc-amg.kz/?p=nov_139

⁸⁵ <http://www.cnpc-amg.kz/>, на 15.05.2020

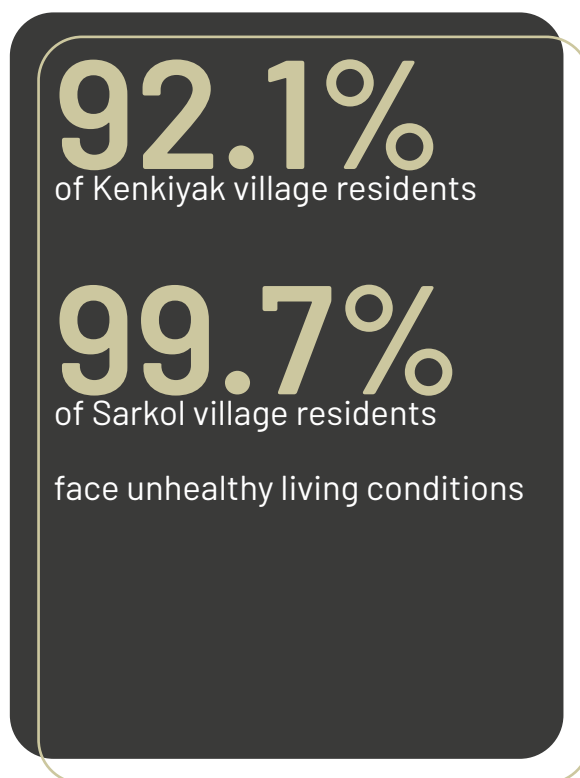
communities thrived during the Soviet era. Today these villages are hardly where you would want to live. One can see many houses for sale, mainly due to poor environmental conditions.⁸⁶

REPEATED VIOLATIONS OF ENVIRONMENTAL LAW: POLLUTION

Due to gas flaring by CNPC, air pollution is now a major concern, respiratory disease has increased, as has pollution of food and water. Even though most local residents express concern over the worsening health effects, plus multiple fines from Kazakhstan's government, the environmental damage caused by CNPC still increases.

According to official data, 92.1% of Kenkiyak, 13.1% of Shubarshi, and 99.7% of Sarkol villagers face unhealthy living conditions.⁸⁷ Many suffer from respiratory and cardiovascular diseases due to airborne pollutants. Measurements of atmospheric air in Kenkiyak found hydrogen sulfide emissions 13 times above the legal maximum limit (MPC).⁸⁸

CNPC-AMG has a notorious local reputation due to its flaring and air-polluting practices. In 2008, for example, the company was fined 96 million tenge (\$0.8 million) for air emissions, and in 2009, it was fined 350 million tenge (\$2.33 million) for exceeding the limits of environmental impact.⁸⁹ In 2010, CNPC-AMG was fined 1.29 billion tenge (\$8.7 million) for gas flaring,⁹⁰ and in 2013 it was fined 5.3 billion tenge (\$34.6 million) for air pollution and underreporting its emissions, finally reported by the environmental prosecutor's office.⁹¹ In 2014, a court estimated the company's environmental damage at 15 billion tenge (\$81.5 million).⁹² Clearly, the company record of environmental pollution is getting worse.



⁸⁶ Лукпан Ахмедьяров, Рауль Упоров, «Китай-город — СПЕЦИАЛЬНЫЙ РЕПОРТАЖ», Уральская неделя, 05.09.2018, <http://www.uralskweek.kz/2018/09/05/kитай-gorod-specialnyj-reportazh/>

⁸⁷ Целевые показатели качества окружающей среды для Актюбинской области на 2018-2025 гг., ТОО «Экосервис-С», Алматы-Актобе 2017, стр.357-385.

⁸⁸ Maximum permissible concentrations (MPC) are legally established health standards that identify the maximum environmental concentrations of chemicals and their compounds which, if exceeded, can cause adverse changes in the body or diseases in someone exposed to their effects on a regular basis.

⁸⁹ Сергей Смирнов, «Нефтяной иероглиф Казахстана», ЭКСПЕРТ ONLINE, 13.04.2009, <http://expert.ru/kazakhstan/2009/14/neftedobycha/>

⁹⁰ «СНПС-Актобемунайгаз» оштрафовали на девять миллионов долларов», Диапазон, 16.02.2010, <http://www.diapazon.kz/kazakhstan/kaz-economy/24582-snps-aktobemunajgaz-oshtrafovali-na-devyat.html>

⁹¹ Юрий Гейст, «СНПС» заплатит штраф 5,3 млрд тенге за испорченный воздух», Диапазон, 13.11.2013, <http://www.diapazon.kz/aktobe/aktobe-city/55289-snps-zaplatit-shtraf-5-3-mlrd-tenge-za-isporchennyy-vozduh.html>

⁹² Ярослав Дробинин, «На «СНПС» подали иск на 15 миллиардов тенге», Диапазон, 05.02.2014, <https://diapazon.kz/news/39640-na-snps-podali-isk-na-15-milliardov-tenge>



VILLAGERS HAVE TO GET THEIR DRINKING WATER DAILY FROM A WATER TRUCK
SCENE FROM THE OTHER SIDE OF OIL DOCUMENTARY © URALSK WEEK

These emissions negatively impact the health and well-being of local residents. Measurements of concentrations of pollutants in local produce are 1.5 times over the maximum permissible concentration (MPC) for cadmium; 3.7 for lead; 2.3 for zinc, and 1.1 for arsenic.⁹³

Although, the quality of water supply to local homes conformed to prescribed norms, oil content in the Temir River near the villages was 5.2 times over the MPC.⁹⁴ A local poll reveals that 94% to 98% of residents are concerned about the adverse effects of air pollution on living conditions.⁹⁵ Almost half the people in the three villages rank environmental damage as their most critical concern, while 31% of Kenkiyak's population note problems with water.⁹⁶

⁹³ Целевые показатели качества окружающей среды для Актыбинской области на 2018-2025 гг., ТОО «Экосервис-С», Алматы-Актобе 2017, стр.357-385.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ Ibid.



OIL FIELD IN KAZAKSTAN, SCENE FROM THE OTHER SIDE OF OIL DOCUMENTARY © URALSK WEEK

EMISSION-RELATED HEALTH IMPACTS ON VILLAGERS

Local residents report a strong smell of hydrogen sulfide. Mortality rates at younger ages have drastically increased. Cardiovascular issues and cancers are the most frequent causes of death among residents. Government officials refuse to associate health problems with the field's operation.

Emissions occur almost daily and seem to be higher on weekends and holidays. The smell of hydrogen sulfide is particularly strong in the early morning – people can smell it inside their homes despite closed windows and doors. Emissions affect almost all who live in these three villages, especially in Shubarshi and Sarkol, which are at lower elevations and closer to the wells.⁹⁷

During a poisoning incident on November 23, 2011, in Shubarshi, 12 children and 7 adults at a local school were poisoned by field emissions. Residents complained to local authorities and to the regional prosecutor's office, but those responsible were never found. The incident was blamed on alleged food poisoning.⁹⁸

Local residents say that in recent years, most young male villagers were ruled unfit for military service due to blood pressure and kidney problems and metabolic disorders. Mortality rates at younger ages have drastically increased, most often due to cardiovascular conditions and cancers.

⁹⁷ Лукпан Ахмедьяров, Рауль Упоров, «Китай-город — СПЕЦИАЛЬНЫЙ РЕПОРТАЖ», Уральская неделя, 05.09.2018, <http://www.uralskweek.kz/2018/09/05/kitaj-gorod-specialnyj-reportazh/>

⁹⁸ Альмира Алишбаева, «В Шубарши отравились дети», Диапазон, 30.11.2011, <http://www.diapazon.kz/aktobe/aktobe-city/41178-v-shubarshi-otravilis-deti.html>; Жанагуль Журсин, «Аким района дал ответ об экологической ситуации в Шубарши», Радио Азаттык, 30.11.2012, <https://rus.azattyq.org/a/akim-of-temir-region-baurzhan-kaniev-wrote-to-azattyq/24785863.html>

Residents have repeatedly complained to authorities about their growing morbidity and mortality rates, but government officials refuse to associate health problems with the field's operation.⁹⁹

As long ago as 2011, Kuralai Karaken, Chief Sanitary Doctor of the Aktobe region, asked the local authorities to consider resettling Shubarshi and Sarkol residents to save them from hazardous hydrogen sulfide emissions caused by CNPC-AMG.¹⁰⁰

NO ACCESS TO CLEAN WATER SUPPLY

The villages are located next to one of the country's largest underground water deposits, yet still face water shortages. Water pollution is a concern. CNPC has not addressed problems with community water supply.

Drinking water is another serious concern for local residents. Despite proximity to Kokzhide, one of the country's underground water deposits,¹⁰¹ many homes lack tap water in the summer.¹⁰² Sufficient flow and pressure can be achieved in the local water supply only in the fall and winter.

According to local residents, they have suffered from these problems since the field was given over to CNPC. The locals believe that the field consumes much water for drilling and production, thereby reducing the community water supply system, but this has never been officially admitted.¹⁰³ In the summer of 2021, the new akim of Kenkiyak Makar Utegenov – an oil specialist elected by locals – confirmed that CNPC-AMG has been using Kokzhide drinking water practically free of charge for 25 years, pumping it into the reservoir and extracting viscous oil.¹⁰⁴ Another possible cause is the extreme use of the local water supply and sewage systems. In the spring of 2004, a sewage accident caused an outbreak of intestinal infection among 300 villagers. Over half of the victims were children.¹⁰⁵

Despite its nearly 25 years in Kenkiyak, CNPC-AMG so far has failed to address the problem with the community water supply system. Instead of providing a sustainable and effective solution, in summer the company sent a water truck to the village. The truck horn alerted people to come out of their homes and collect water.

⁹⁹ Лукпан Ахмедьяров, Рауль Упоров, «Китай-город — СПЕЦИАЛЬНЫЙ РЕПОРТАЖ», Уральская неделя, 05.09.2018, <http://www.uralskweek.kz/2018/09/05/kitaj-gorod-specialnyj-reportazh/>

¹⁰⁰ «Шокирующая информация о ситуации в посёлках Сарколь и Шубарши появилась сегодня на сайте информационного агентства КазТАГ», МЕТАКЗ, 06.10.2011, <http://www.meta.kz/533830-shokiruyuschaya-informaciya-o-situacii-v-poselkah-sarkol-i-shubarshi-poyavilas-segodnya-na-sayte-informacionnogo-agentstva-kaztag.html>

¹⁰¹ Кокжиде, Комитет геологии и недропользования, http://info.geology.gov.kz/ru/informatsiya/spravochnik-mestorozhdenij-kazahstana/podzemnye-vody/item/кокжиде_на_15.05.2020

¹⁰² Лукпан Ахмедьяров, Рауль Упоров, «Китай-город — СПЕЦИАЛЬНЫЙ РЕПОРТАЖ», Уральская неделя, 05.09.2018, <http://www.uralskweek.kz/2018/09/05/kitaj-gorod-specialnyj-reportazh/>

¹⁰³ Лукпан Ахмедьяров, Рауль Упоров, «Китай-город — СПЕЦИАЛЬНЫЙ РЕПОРТАЖ», Уральская неделя, 05.09.2018, <http://www.uralskweek.kz/2018/09/05/kitaj-gorod-specialnyj-reportazh/>

¹⁰⁴ Интервью с М.Утегеновым, YouTube канал "Просто журналистика," 09.08.2021

¹⁰⁵ «В актюбинском поселке Кенкияк число жителей, у которых выявлена острая кишечная инфекция, достигло 289, в том числе 181 ребенок», Караван, 31.03.2004, <https://www.caravan.kz/news/y-aktyubinskom-poselke-kenkiyak-chislo-zhitelej-u-kotorykh-vyyavlena-ostрая-kishechnaya-infekciya-dostiglo-289-v-tom-chisle-181-rebenok-195816/>



VILLAGE OF KENKIYAK © CRUDE ACCOUNTABILITY

STRUGGLING COMMUNITIES

Residents face extremely high unemployment. There is a shortage of schools and kindergartens. The latter was addressed via CNPC investments in the local community, but no further details were disclosed. By allowing CNPC to continue to damage the local environment, both China and Kazakhstan are in breach of their international environmental obligations.

In addition to acute environmental problems, local residents face numerous unmet social needs, including an extremely high unemployment rate.

A thriving Soviet-era community, Kenkiyak has experienced hard times since Kazakhstan's independence, especially after the arrival of CNPC-AMG. Oilfield support services, which had employed locals, were all closed. According to local activist Ardak Kubasheva, today it is almost impossible to find employment with a Chinese company without paying a bribe.¹⁰⁶ There is also a shortage of local schools and kindergartens.¹⁰⁷

CNPC-AMG reports spending 24.71 billion tenge (over \$57 million) between 1997 and 2019 to support local education, culture, sports, healthcare, agriculture, and businesses. No details of

¹⁰⁶ Елена Рышкіна, «Нефтяники опозорились. О взятках в Темирском районе рассказали на международном уровне», Актөбе Таймс, 21.07.2017, <http://aktobetimes.kz/verhnyaya-novost/4495-neftyaniki-opozorilis.html>

¹⁰⁷ Ibid.

these projects and their cost are available on the company's website. The few figures provided indicate that nearly one-third of the company's charitable assistance (over \$19 million, or 8.415 tenge) went to establish the National Academy of Choreography in Kazakhstan's capital, Nur-Sultan.¹⁰⁸

By allowing its parastatal company to continuously cause major environmental damage - while denying remedies to the affected communities - the Chinese government has ignored its Extraterritorial Obligations (ETOs) under the UN Economic, Social, and Cultural Rights Treaty.

Kazakhstan and China have ratified the International Covenant on Economic, Social, and Cultural Rights ("Treaty on ESC Rights"). Article 12 of this Treaty specifies state obligations to undertake steps to fully achieve improvement of all aspects of environmental and industrial hygiene.¹⁰⁹

The Committee on Economic, Social, and Cultural Rights in its General Comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social, and Cultural Rights in under business activities stipulates that State parties are required by "the extraterritorial obligation to protect and prevent infringements of Covenant rights that occur outside their territories due to activities of business entities over which they can exercise control, especially in cases where the remedies available to victims before the domestic courts of the State where the harm occurs are unavailable or ineffective."¹¹⁰

CNPC'S QUESTIONABLE ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

Local residents and media have difficulty contacting company management over environmental injustice concerns, among other grievances.

Although CNPC-AMG declares social responsibility and community dialogue to be a critical aspect of its governance strategy,¹¹¹ the local public finds it extremely difficult to engage with the company's management. Its Chinese staff refuses to talk to them and avoids most contact. Even when local residents send written requests, the company never responds directly, but only via local government officials. Indeed, refusal to communicate with anyone but government bureaucrats is a defining feature of CNPC-AMG managers.¹¹² Likewise, they never disclose environmental impact information to locals residents.¹¹³ "The public hearings conducted by the company are a complete profanity with numerous violations of the law," says Makar Utegenov. "They do not involve specialists who understand the essence of the issue, and the invited local people are given

¹⁰⁸ Внешняя благотворительность, СНПС-Актобемунайгаз, http://www.cnpc-amg.kz/?p=vneshe_blag, на 15.05.2020.

¹⁰⁹ UN International Covenant on Economic, Social and Cultural Rights https://treaties.un.org/doc/Treaties/1976/01/19760103%2009-57%20PM/Ch_IV_03.pdf.

¹¹⁰ UN Economic and Social Council, Committee on Economic, Social and Cultural Rights, General comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social and Cultural Rights in the context of business activities

¹¹¹ Ibid.

¹¹² Лукпан Ахмедьяров, Рауль Упоров, «Китай-город — СПЕЦИАЛЬНЫЙ РЕПОРТАЖ», Уральская неделя, 05.09.2018, <http://www.uralweek.kz/2018/09/05/kитай-gorod-specialnyj-reportazh/>

¹¹³ Ibid.



MOBILE ENVIRONMENTAL LAB, VILLAGES OF KENKIYAK AND ZHANAZOL
© CRUDE ACCOUNTABILITY

handouts - like a sack of flour - so that they agree with everything. And this is actively promoted by local authorities," he continues.¹¹⁴

CNPC-AMG also avoids comments to the media. In August 2018, after a field trip to Kenkiyak, reporters from regional newspaper, *Uralskaya Nedelya* tried without success to obtain comments from the company's management or press service.¹¹⁵ In response to journalists' written requests for information, a company representative refused to comment because CNPC-AMG had not published official information on the matter in question.¹¹⁶

Numerous CNPC-AMG billboards in the villages and around the oilfields display slogans such as *Unity Is Harmony; Harmony Is Moral Strength and Moral Strength Is OUR VICTORY!; Let's Preserve the World around Us; and Harmony of Energy and Nature*. These slogans create the illusion that the Chinese company is actually committed to protecting the environment and assisting local residents.¹¹⁷

¹¹⁴ Интервью с М.Утегеновым, YouTube канал "Просто журналистика," 09.08.2021

¹¹⁵ Ibid.

¹¹⁶ Письмо СНПС-АМГ №17-АГД-091 от 27.08.2018.

¹¹⁷ Лукпан Ахмедьяров, Рауль Упоров, «Китай-город — СПЕЦИАЛЬНЫЙ РЕПОРТАЖ», Уральская неделя, 05.09.2018, <http://www.uralskweek.kz/2018/09/05/kitaj-gorod-specialnyj-reportazh/>



KAZAKHTURKMUNAY FACILITIES © CRUDE ACCOUNTABILITY

FAILURE TO DISCLOSE KEY ENVIRONMENTAL INFORMATION

China's state agency on overseas investments claims that CNPC has progressed in its environmental protection performance.

Western companies, such as KPO, outperform China's companies in environmental responsibility and transparency.

In the summer of 2019, CNPC-AMG installed an automated air monitoring station near the villages of Sarkol and Shubarshi. Yet, the company did not disclose whether and how the air quality data would be communicated to local residents,¹¹⁸ nor has it published emissions details on its website since then.¹¹⁹

In fact, CNPC's failure to disclose its environmental impact data affects the Kazakhstan authorities as well as citizens. In March 2019, a major accident occurred at the Kalamkas field,¹²⁰ which is operated by MangistauMunaiGaz along with CNPC.¹²¹ The operator responsible for the

¹¹⁸ «В АО «СНПС-Актобемунайгаз» действует автоматизированная система контроля атмосферного воздуха», СНПС-Актобемунайгаз, 09.08.2019, http://www.cnpc-amg.kz/?p=nov_130

¹¹⁹ Охрана окружающей среды, СНПС-Актобемунайгаз, http://www.cnpc-amg.kz/?p=ohr_okr, на 17.05.2020

¹²⁰ «Подроbnости ЧП на месторождении Каламкас», Служба Центральных Коммуникаций, 26.03.2019, <https://ortcom.kz/ru/novosti/podrobnosti-chp-na-mestorozhdenii-kalamkas>

¹²¹ http://www.cnpc.com.cn/ru/hskst/hskst_index.shtml ; <http://www.mmg.kz/page.php>, на 17.05.2020.

accident¹²² was Sibiu Drilling Company, a CNPC subsidiary.¹²³ Only a week later were Kazakhstan's authorities informed of the accident – from the media.¹²⁴

CNPC's track record of repeated environmental violations and non-responsive treatment of grievances raised by the local affected communities is in glaring contrast to the 2018 portrait painted by China's state agency that oversees overseas investments. That agency claimed that the Chinese company has made strides on "improving environmental protection performance... implementing pollution control measures."¹²⁵ The administrative fees the Kazakhstani authorities issued for repeated environmental violations, along with local community testimonials, raise major questions as to how the company reached the self-serving conclusion cited above.

There is a striking difference between CNPC-AMG and Western oil companies on transparency and mode of operation. For example, the Karachaganak Petroleum Operating, B.V. (KPO) consortium to develop the large Karachaganak oil and gas condensate field in Western Kazakhstan oblast was launched in 1997, at the same time as CNPC-AMG. KPO is operated by Eni and Shell.¹²⁶

KPO conducts round-the-clock air monitoring through 18 automatic environmental monitoring stations along the Karachaganak field perimeter and in its Sanitary Protection Zone. Additional air monitoring stations are located in the eight villages around Karachaganak and in the city of Aksai, located some 25 km from the field, where the KPO headquarters are located. Monitoring station data is published monthly in the local print media and sent to villages around the field for posting on information boards.¹²⁷ The KPO website also publishes emissions data.¹²⁸

Since its launch, KPO has financed social and infrastructure projects in Western Kazakhstan oblast and since 2010 has made available \$20 million each year towards such projects. Details of these projects are published on KPO's website and the funding amounts are specified in reports.¹²⁹ Since 2012, KPO has held public hearings on its environmental protection measures and field development projects that could affect the local community. KPO has a mechanism to accept complaints from nearby villages.¹³⁰ The general public and local communities have voiced numerous complaints about KPO's social and environmental performance and transparency. Of particular concern is the mass poisoning of children in the village of Berezovka in 2014.¹³¹ Nevertheless, KPO's social and environmental responsibility is significantly better than that of CNPC-AMG.

¹²² Рабига Дюсенгулова, «Названы виновные в аварии на месторождении «Каламкас», TENGRI NEWS, 02.05.2019, https://tengrinews.kz/kazakhstan_news/nazvaniy-vinovnyie-v-avarii-na-mestorozhdenii-kalamkas-368352/

¹²³ ТОО «Нефтяная компания Сибур по бурению и технологическому обслуживанию (Казахстан)», https://xibu.satu.kz/about_us, на 17.05.2020.

¹²⁴ «Подробности ЧП на месторождении Каламкас», Служба Центральных Коммуникаций, 26.03.2019, <https://ortcom.kz/ru/novosti/podrobnosti-chp-na-mestorozhdenii-kalamkas>

¹²⁵ An unofficial translation: "CNPC: Implementation of Social Responsibilities for China's Oil and Gas projects in Central Asia" 中华人民共和国商务部《中亚油气合作履行社会责任扫描》October, 2018,

¹²⁶ Parent Companies, <https://www.kpo.kz/en/about-kpo/parent-companies.html>, last accessed on 17 May 2020

¹²⁷ Protecting the environment, <https://www.kpo.kz/en/sustainability/hse/protecting-the-environment/preventing-impacts-on-the-communities.html>, last accessed on 17 May 2020

¹²⁸ Emissions to air, <https://www.kpo.kz/en/sustainability/hse/protecting-the-environment/emissions-to-air.html>, last accessed on 17 May 2020

¹²⁹ Supporting Social Infrastructure, <https://www.kpo.kz/en/sustainability/social-responsibility/supporting-social-infrastructure.html>, last accessed on 17 May 2020

¹³⁰ Community Engagement, <https://www.kpo.kz/en/sustainability/social-responsibility/community-engagement.html>, last accessed on 17 May 2020

¹³¹ Crude Accountability, <https://crudeaccountability.org/children-poisoned-by-unknown-toxins-in-berezovka-kazakhstan-close-to-the-karachaganak-oil-and-gas-condensate-field/>, last accessed on 17 May 2020



STEPPE EROSION NEAR MYNBULAK, KAZAKHSTAN © RAUL UPOROV

OIL OR WATER?

The Kokzhide water deposit - in 1990 declared to have high environmental value and in 2010 barred from hosting oil prospecting or production facilities - is heavily polluted with petroleum products. This negative impact was confirmed by Kazakhstan's authorities; the main culprits are CNPC and KNOC facilities in and around the reserve. No meaningful action has been taken to improve the situation. Plans to drill 168 new oil wells remain.

A major concern for Kazakhstan's public, parliament, and government is the imminent threat to the Kokzhide and Mynbulak underground freshwater deposits from pollution from oil production.

Underlying the Kokzhide sand massif, located between the Emba and Temir rivers in the Aktobe region, is the largest source of groundwater in western Kazakhstan, unique in terms of water quality.¹³² The Kokzhide groundwater deposit was discovered in 1983, and its water reserves were then estimated at almost 200 thousand cubic meters per day.¹³³ Kokzhide currently supplies water only to nearby villages. It could supply fresh water not only to the Aktobe region, but also to the Atyrau and Mangystau regions, to alleviate drinking water shortages. In Soviet times, there were plans to dig a water conduit from Kokzhide to the Mangistau region and connect it to the Volga-Aktau conduit.¹³⁴

¹³² Целевые показатели качества окружающей среды для Актобинской области на 2018-2025 гг., ТОО «Экосервис-С», Алматы-Актобе 2017, стр.116-130.

¹³³ Дулат Тасымов, «Более 1,1 миллиарда тенге выделяют на оценку запасов месторождения пресных вод «Коюжиде», КУРСИВ, 10.04.2019, <https://kursiv.kz/news/finansy/2019-04/bolee-11-milliarda-tenge-videlyat-na-ocenku-zapasov-mestorozhdeniya-presnykh>

¹³⁴ Юлия Минина, «Родники Коюжиде отравляют нефтью и металлами», Актобе Таймс, 28.05.2016, <http://aktobetimes.kz/verhnyaya-novost/2333-rodniki-kokzhide-otravlyayut-neftyu-i-metallami.html>

In 1990, the executive committee of the Aktobe Regional Council of People's Deputies banned all oil prospecting and production around Kokzhide.¹³⁵ By RK Government Decree No. 1212 (November 18, 2010) the Kokzhide site was granted the status of a national protected area due its high environmental value. In Resolution No. 7 (January 23, 2013), the Aktobe Regional Akimat established the Kokzhide-Kumzhargan natural reserve of local importance with a total area of 43,977 hectares.¹³⁶

At present, however, the Kokzhide massif is severely impacted by oil exploration and production operations carried out by seven oil companies: Kazakhoil Aktobe, KMK Munai JSC (52 producing wells, 87.96%), Ada Oil Firm (42 producing wells), CNPC-AktobeMunayGas (10 producing wells), Urikhtau Operating, JV Fial, and MGK.¹³⁷ KMK Munai, developing the

Kokzhide oil and gas field, is a subsidiary of CNPC-AMG.¹³⁸ Thus, CNPC subsidiaries operate almost 60% of production wells at Kokzhide. The remaining 40% of wells are operated by Ada Oil, a subsidiary of the Korean National Oil Company (KNOC), which is developing the Bashenkol field at Kokzhide.¹³⁹

Oil companies are the main culprit of Kokzhide underground water pollution. Their drilling disrupts the natural water density and filtration properties of the aquifer. Gas flaring pollutes the soil, adding to the damage.¹⁴⁰

Samples taken in the summer of 2012 by Kazakhstan's Agency of Applied Ecology revealed oil products in Kokzhide's water reserves.¹⁴¹ The 2010-2014 data from three observation wells at Kokzhide indicated that oil products in groundwater exceeded the permitted limits by 3 to 42 times.¹⁴² Between May and December 2015, Kazakhstan's Aliya and KO company was officially commissioned to monitor Kokzhide groundwater. It found excessive concentrations of pollutants: 1,000 times the permitted limit for iron, 15 times for petroleum products, almost 7 times for lead, and 20 times for cadmium.¹⁴³ According to the Aktobe Regional Department of Natural Resources,

The Aktobe region prosecutor's office has, on many occasions, found violations of environmental standards at Kokzhide

¹³⁵ М.Картова, «Пески «Кокжиде» - как памятник природы Актыбинской степи», Природа Оренбургской области, 05.04.2016, <http://orenpriroda.ru/steppene/sim2009/1658-пески-«кокжиде»-как-памятник-природы-актыбинской-степи>, weblink no longer active

¹³⁶ Целевые показатели качества окружающей среды для Актыбинской области на 2018-2025 гг., ТОО «Экосервис-С», Алматы-Актобе 2017, стр.116-130.

¹³⁷ Ibid.

¹³⁸ Информация о крупных акционерах, КМК Мунай, <http://www.kmkmunai.com/index.php?name=content&op=view&id=3>, на 17.05.2020

¹³⁹ Kazakhstan, Korean National Oil Corporation, http://www.knoc.co.kr/ENG/sub03/sub03_1_1_2.jsp, на 17.05.2020

¹⁴⁰ Целевые показатели качества окружающей среды для Актыбинской области на 2018-2025 гг., ТОО «Экосервис-С», Алматы-Актобе 2017, стр.116-130.

¹⁴¹ Жанат Сисекенова, «Прокуроры Актыбинской области ратуют за сохранение уникального месторождения Кокжиде», zakon.kz, 16.01.2013, <https://www.zakon.kz/4535687-prokurory-aktjubinskoj-oblasti-ratuut.html>

¹⁴² Ренат Таипов, «Нефть отравила огромное месторождение питьевой воды Кокжиде», Актобе Таймс, 30.05.2019, <http://aktobetimes.kz/centralnaya-verhnyaya-novost/7409-neft-otravila-ogromnoe-mestorozhdenie-pitevoy-vody-kokzhide.html>

¹⁴³ Юлия Минина, «Родники Кокжиде отравляют нефтью и металлами», Актобе Таймс, 28.05.2016, <http://aktobetimes.kz/verhnyaya-novost/2333-rodniki-kokzhide-otravlyayut-neftyu-i-metallami.html>



KOKZHIDE WATER PUMP STATION IN KENKIYAK, KAZAKHSTAN
SCENE FROM THE OTHER SIDE OF OIL DOCUMENTARY © URALSK WEEK

in 2017 the concentration of pollutants around KMK Munai's operation exceeded 1.4 times the prescribed limit.¹⁴⁴

The Aktobe region prosecutor's office has, on many occasions, found violations of environmental standards at Kokzhide.¹⁴⁵ In 2012, the prosecutors found that CNPC-AMG, in violation of the law and relevant contract, had operated four wells since 2009 without building site access roads, resulting in soil contamination and declining quality of surface water.¹⁴⁶ CNPC-AMG argued that data from the observation wells they had built at Kokzhide in 2007 did not reveal excessive petroleum groundwater contamination.¹⁴⁷ Yet findings from government-commissioned monitoring studies between 2010 and 2017 confirm the adverse impact of oil operations on Kokzhide groundwater quality.¹⁴⁸

In April 2018, members of Kazakhstan's Parliament urged the Prime Minister to look into the situation with Kokzhide and Mynbulak in the Kyzylorda region following mass appeals from Aktobe

¹⁴⁴ Самал Ендибаева, «Нефтедобыча загрязняет уникальное подземное месторождение пресных вод «Кокжиде», KAZINFORM, 27.12.2017, https://www.inform.kz/ru/neftedobycha-zagryaznyaet-unikal-noe-podzemnoe-mestorozhdenie-presnyh-vod-kokzhide_a3105564

¹⁴⁵ Юлия Минина, «Родники Кокжиде отравляют нефтью и металлами», Актобе Таймс, 28.05.2016, <http://aktobetimes.kz/verhnyaya-novost/2333-rodniki-kokzhide-otravlyayut-neftyu-i-metallami.html>

¹⁴⁶ Жанат Сисекенова, «Прокуроры Актыбинской области ратуют за сохранение уникального месторождения Кокжиде», zakon.kz, 16.01.2013, <https://www.zakon.kz/4535687-prokurory-aktjubinskoj-oblasti-ratujut.html>

¹⁴⁷ Семен Данилов, «Найти инвесторов для водного месторождения Кокжиде», inbusiness.kz, 03.06.2016, <https://inbusiness.kz/ru/news/najti-investorov-dlya-vodnogo-mestorozhdeniya-kokzhide>

¹⁴⁸ Целевые показатели качества окружающей среды для Актыбинской области на 2018-2025 гг., ТОО «Экосервис-С», Алматы-Актобе 2017, стр.116-130.

region's residents, experts, and concerned government authorities.¹⁴⁹ The parliament members also warned that the operators were planning to drill 168 more wells at Kokzhide.¹⁵⁰ In response, Prime Minister Bakytzhan Sagintayev recalled that the Kokzhide groundwater deposit was a protected natural area where all potentially hazardous activities were prohibited and instructed the relevant government ministries and the Aktobe region akimat to examine the situation and, if appropriate, to stop oil production at Kokzhide.¹⁵¹ On May 29th, 2019, a group of environmentalists and public figures in the Aktobe region appealed to the head of the region, Odnassyn Urazalin, urging him to prevent imminent damage to Kokzhide from increased prospecting and exploration.¹⁵²

The opinions of local community members, scientists, and specialists have been ignored by CNPC-AMG and the authorities. According to Makar Utegenov, in addition to the unsustainable long-term and practically unrestricted use of the valuable Kokzhide waters for oil production, the water evaporated with oil is then re-injected into the reservoir.¹⁵³ It is unclear what effect this has on Kokzhide. There are no independent verification and modern monitoring materials publicly available. CNPC-AMG states that their wells in Kokzhide are safe, though Utegenov told Crude Accountability that there is evidence of a leak from the wells into the aquifer.¹⁵⁴ Similar behavior is observed in the activities of the CNPC-AMG subsidiary KMK Munai, which uses water from the Kumsay groundwater field, the main source of drinking water for Kenkiyak.¹⁵⁵ Nurtas Balmagambetov, a hydrogeologist who has been researching the Kokzhide problem for many years, believes that about 50% of Kokzhide's waters are already polluted, and all oil and gas work at Kokzhide must be immediately suspended.¹⁵⁶ It is worth noting that both Utegenov and Balmagambetov know CNPC-AMG well from the inside: they were previously long-term employees. According to Petr Kotik, the oldest and most respected geologist in Kazakhstan, the companies' "barbaric" attitude toward Kokzhide may lead to an ecological disaster.¹⁵⁷

The situation with Kokzhide has not

The Department of Ecology of the Aktobe region analyzed water samples from the Kokzhide and Kumzhargan natural reserves and found the petroleum content to be several times higher than the Maximum Permissible Concentration (MPC) – specifically, 1.3 to 8 times higher near KMK Munai wells and 1.35 to 7.81 higher near Ada Oil wells.

¹⁴⁹ Депутатский запрос, 11.04.2018, <http://www.parlam.kz/ru/blogs/baimahanova/Details/8/59209>

¹⁵⁰ Ibid.

¹⁵¹ Мария Дубовая, «Сагинтаев ответил депутатам на запрос о загрязнении подземных вод на юго-западе РК», inform БЮРО, 04.05.2018, <https://informburo.kz/novosti/sagintaev-otvetil-deputatam-na-zapros-o-zagryaznenii-podzemnyh-vod-na-yugo-zapade-rk.html>

¹⁵² Ренат Таипов, «Нефть отравила огромное месторождение питьевой воды Кокжиде», Актобе Таймс, 30.05.2019, <http://aktobetimes.kz/centralnaya-verhnyaya-novost/7409-neft-otravila-ogromnoe-mestorozhdenie-pitevoy-vody-kokzhide.html>

¹⁵³ Интервью с М.Утегеновым, YouTube канал "Просто журналистика," 09.08.2021

¹⁵⁴ Ibid

¹⁵⁵ Ibid

¹⁵⁶ Интервью с Н.Балмагамбетовым, YouTube канал "Просто журналистика," 10.08.2021.

¹⁵⁷ Интервью с Н.Балмагамбетовым, YouTube канал "Просто журналистика," 10.08.2021.

improved in any substantial way, while the authorities continue "examining" the problem.

In the summer of 2019, the Department of Ecology of the Aktobe region analyzed water samples from the Kokzhide and Kumzhargan natural reserves and found the petroleum content to be several times higher than the maximum permissible concentration (MPC) – specifically, 1.3 to 8 times higher near KMK Munai wells and 1.35 to 7.81 higher near Ada Oil wells.¹⁵⁸ In October 2019, members of Kazakhstan's Parliament once again appealed to the government about the fate of Kokzhide and Mynbulak.¹⁵⁹ According to the Aktobe Regional Department of Ecology, currently CNPC-AMG, KMK Munai, Ada Oil, and Kazakhoil Aktobe are having the greatest impact on Kokzhide by engaging in continuous oil production.¹⁶⁰

In October 2020, the Ministry of Ecology of the Republic of Kazakhstan created an Interdepartmental Commission to determine the impact of the subsoil users' activities in Kokzhide. Sampling work was carried out for all subsoil users, during which it was found that the content of oil products in the underground waters of Kokzhide is close to the MPC.¹⁶¹ There is still no state-level environmental monitoring of what is happening at Kokzhide.¹⁶² Public access to the Kokzhide sands is limited, because Kokzhide is surrounded almost completely by territories under contract by the oil companies, and their permission is required to travel there.¹⁶³

Crude Accountability's investigative travel during the summer of 2021 demonstrated that the attitude of local officials to the Kokzhide problem has changed over the past two years: they now recognize that the drinking water shortage in the region is becoming more acute. Local officials are beginning to demand that the central authorities resolve the environmental damage caused by oil companies at Kokzhide.¹⁶⁴

MYNBULAK FIELD

Mynbulak was discovered in the 1980s during prospecting and exploration seeking a water supply for a projected nuclear power plant (400 MW) to supply power to the Baikonur cosmodrome. The originally classified work was carried out at the request of the USSR Ministry of Defense. The field has since been declassified and given status as a strategic area by the Decree of the Government of the Republic of Kazakhstan No. 1137 dated October 4th, 2011.¹⁶⁵ Though not yet exploited, the approved operational reserves of Mynbulak are 250 thousand cubic meters of water per day, which can provide high-quality drinking water for a city with a population of one million people.¹⁶⁶

¹⁵⁸ Акмарал Майкозова, «Качали и будут качать!», *Время*, 17.01.2020, <https://time.kz/articles/zloba/2020/01/17/kachali-i-budut-kachat>

¹⁵⁹ Депутатский запрос, 30.10.2019, <http://www.parlam.kz/ru/blogs/karaken/Details/8/72498>

¹⁶⁰ Письмо департамента экологии Актюбинской области №01-05-10/1996-ЖТ-С-22 от 29.07.2019.

¹⁶¹ Письмо департамента экологии Актюбинской области №01-05-10/499-ЖТ-С-12 от 19.03.2021.

¹⁶² Ibid.

¹⁶³ Свидетельство консультанта Crude Accountability, август 2021.

¹⁶⁴ Ibid.

¹⁶⁵ Игорь Титенок, «Не «подсолить» бы подарок природы», *Кызылординские вести*, 03.07.2014, <https://kzvesti.kz/3-iyulya-2014/3204-ne-podsolit-by-podarok-prirody.html>

¹⁶⁶ Ibid.



CRUDE ACCOUNTABILITY TEAM IN THE STEPPE NEAR THE MYNBULAK FIELD, KAZAKHSTAN © RAUL UPOROV

The Mynbulak field is in a remote steppe on the border between the Kyzylorda and Karaganda regions, in the Turgai oil and gas region. While the large deposits of Turgai were being developed, Mynbulak was untouched. Now, oil and gas projects are underway in the immediate vicinity of Mynbulak, posing a threat of pollution to the groundwater.¹⁶⁷ According to official data, five oil-producing companies are currently operating on the borders of the Mynbulak field,¹⁶⁸ primarily subsidiaries of the Kazakh-Chinese company PetroKazakhstan whose shareholders are CNPC and the national company KazMunaiGaz.¹⁶⁹

In the summer of 2021, Crude Accountability and local journalists drove to Mynbulak to assess the situation but were stopped at the PetroKazakhstan checkpoint. The field is located on the contract territory of PetroKazakhstan and a special pass is needed to get through, which requires a lot of time and effort to obtain.¹⁷⁰

This restricted access is an example of how oil companies can and do prevent public monitoring of national natural resources, such as the Kokzhide and Mynbulak groundwater deposits. They do not have the right to do this, either by law or contract terms. While the political leaders of Kazakhstan refuse to act, both groundwater deposits remain under the threat of pollution and destruction by oil companies, mainly by subsidiaries of CNPC. In Kokzhide, these threats are already being implemented, and in Mynbulak they may soon become a reality.

¹⁶⁷ Ibid.

¹⁶⁸ Письмо департамента экологии Кызылординской области № 01-05/1003 от 07.07.2020.

¹⁶⁹ «ПетроКазakhstan», https://www.petrokazakhstan.kz/rus/pages/about_company.html, 13.10.2021

¹⁷⁰ Свидетельство консультанта Crude Accountability, июль 2021

CONCLUSION

A study of China's role in Kazakhstan's energy sector justifies concerns that the country is becoming an appendage to the Chinese economy.

Generally, Chinese oil companies operate in Kazakhstan in much the same way as other foreign investors in the country's oil and gas sector. But Chinese operators are much more relaxed about environmental protection, extremely non-transparent, and largely ignore the social and environmental challenges faced by local communities affected by their oil extraction.

It would be unfair to put all the blame on the Chinese side. It is up to the country's government to set the rules of the game for foreign investors to make sure that their operations serve the best interests of the Kazakh people and do not disrupt their wellbeing and the environment. Therefore, the first ones to be held accountable are the host country's executive and legislative authorities who turn a blind eye to all the liberties taken by Chinese oil companies in Kazakhstan.

Both the public and experts rightly point out the persistent lack of transparency about China's investments and projects in the country. Despite the wave of protests in the fall of 2019, timely and sufficiently detailed information from both Kazakhstani and Chinese officials is still scarce. This lack of transparency in Kazakh-Chinese cooperation continues to fuel sinophobia in Kazakhstan. It also highlights the corporations' and government's greed in their attempts to maximize the extraction of natural resources. With good management and proper enforcement of domestic environmental laws and international treaties, more information could be available to the public, eventually forcing companies to improve their environmental and social performance.



CHAPTER 3

UZBEKISTAN

China views Uzbekistan as a key transit hub for energy and a natural gas supplier. However, the country's gas reserves are depleting. The Uzbek government is bypassing domestic natural gas demand to focus on its export.

Uzbekistan

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THE PATH BEGINS

Energy cooperation between China and Uzbekistan began in the early 2000s. In 2012, a strategic partnership was formed in order to cement Chinese access to natural gas. Central Asian Gas Pipeline that runs through Uzbekistan has three existing branches, and a planned fourth branch, is of strategic importance for China.

Energy cooperation between China and Uzbekistan began in the early 2000s, as soon as China realized it needed to import energy resources.¹

In mid-2004, the first framework cooperation agreement was signed between CNPC and Uzbekneftegaz.² In 2005, agreements were reached on Chinese investments in Uzbekistan's oilfield exploration and development, involving China National Oil and Gas Exploration and Development Company (CNODC, a wholly owned CNPC subsidiary). CNODC drew up geological exploration plans for 23 sites with hard-to-recover reserves in the country's Ustyurt, Bukhara-Khiva, and Fergana regions. As a result, the UzChina National Petroleum Corporation was set up as a joint venture with authorized capital of \$96 million. The Chinese partner agreed to invest \$600 million over 25 years.³

A further step in energy-sector cooperation was the April 2007 agreement on Uzbekistan's participation in building the Central Asian Gas Pipeline between Turkmenistan and China. The first branch of the pipeline's Uzbekistan section was commissioned in December 2009, with a second branch a year later. In late 2011, with financial support from China Development Bank and CNPC, Uzbekistan began construction of the third pipeline branch. Under the 2009 intergovernmental agreement, Uzbekistan

**\$4.64
billion**

estimated BRI-related
Chinese investments in
Uzbekistan (2013 to 2018)

¹ Константин Сыроежкин, «Присутствие Китая в энергетическом секторе Центральной Азии», Центральная Азия и Кавказ, том 15, №1, 2012, <https://cyberleninka.ru/article/n/prisutstvie-kitaya-v-energeticheskom-sektore-tsentralnoy-azii>, на 10.05.2020

² М.Данилович, «Эволюция китайско-узбекских отношений в 2001–2012 гг.», БГУ, 11.03.2013, https://elib.bsu.by/bitstream/123456789/90622/1/danilovich_%202013_Actual_prob IR.pdf

³ Константин Сыроежкин, «Присутствие Китая в энергетическом секторе Центральной Азии», Центральная Азия и Кавказ, том 15, №1, 2012, <https://cyberleninka.ru/article/n/prisutstvie-kitaya-v-energeticheskom-sektore-tsentralnoy-azii>, на 10.05.2020

agreed to annual export of 10 bcm of gas to China.⁴

During President Karimov's June 2012 visit to China, Uzbek-Chinese relations was elevated to "strategic partnership," in particular in exploration, production, and transportation of Uzbek gas.⁵ The three existing branches, and the planned fourth branch of the Central Asian Gas Pipeline, of strategic importance for China, run through Uzbekistan. This explains the focus on natural gas sector cooperation.

INVESTMENTS IN OIL AND GAS

China is the country's largest foreign investor, \$7.6 billion was invested in 2017, 34% in petroleum and mineral exploration and processing. In 2019, Uzbekistan reported \$11.8 billion in foreign investments; 73% in the natural gas sector.

According to official Uzbekistan information in 2016, Chinese investments in the country's economy constituted 35.6% of all foreign investment; thus, Beijing is its largest foreign investor.⁶ According to published Chinese estimates, its total investment in Uzbekistan's economy stands at over \$7.6 billion (2017).⁷ CADGAT estimates \$4.64 billion BRI-related Chinese investments in Uzbekistan between 2013 and 2018. Almost half of investment went to petroleum and mineral resource exploration and processing (\$2.21 billion).⁸ In recent years, bilateral cooperation has grown rapidly. China is now Uzbekistan's leading foreign trade partner, and Tashkent's dependence on Chinese investments and loans is increasing. Energy and oil products are among key Uzbeki exports to China (46.2%, 2019). Over 20% (about \$3 billion) of Uzbekistan's public external debt is owed to China (2019).

Uzbekistan's oil and gas sector is an attractive area for foreign investors since natural gas development projects are often regulated by production sharing agreements.⁹ According to Uzbekistan's State Investment Committee (2019), in recent years, the country has attracted \$11.8

**\$2.21
billion**

estimated BRI-related
Chinese investments in
Uzbekistan's petroleum and
mineral resources

(2013 to 2018)

⁴ М.Данилович, «Эволюция китайско-узбекских отношений в 2001–2012 гг.», БГУ, 11.03.2013, https://elib.bsu.by/bitstream/123456789/90622/1/danilovich_%202013_Actual_probl_IR.pdf

⁵ Константин Сыроежкин, «К итогам визита Си Цзиньпина в Центральную Азию: Узбекистан», Carnegie Endowment, 23.09.2013, <http://carnegieendowment.org/2013/09/23/ru-pub-53060>; «Узбекистан-Китай: стратегическое партнёрство», 08.06.2012, Общество дружбы «Китай-Узбекистан», <https://china-uz-friendship.com/?p=409>

⁶ Константин Сыроежкин, «Проект «Экономический пояс Шёлкового пути» в сложном пространстве Центральной Азии», Контурь глобальных трансформаций, Выпуск 6, том 9, 2016, <https://cyberleninka.ru/article/v/proekt-ekonomicheskij-poyas-shyolkovogo-puti-v-slozhnom-prostranstve-tsentralnoy-azii>, на 07.05.2020

⁷ «Китай — крупнейшая страна по объёму капиталовложений в республику, объём инвестиций ежегодно растёт», SPUTNIK, 24.03.2017, <https://uz.sputniknews.ru/economy/20170324/5044417/Obiem-kitaiskih-investicii.html>

⁸ F.Aminjonov, A.Abylkasymova, A.Aimée, B.Eshchanov, D.Moldokanov, I.Overland, R.Vakulchuk, BRI in Central Asia: Overview of Chinese Projects, 2019, <http://osce-academy.net/en/research/cadgat/>, as of 07.05.2020

⁹ Сергей Смирнов, «Газовая диета Узбекистана», РИТМ ЕВРАЗИИ, 29.03.2019, <https://www.ritm Eurasia.org/news--2019-03-29--gazovaya-dieta-uzbekistana-41863>



SUSPENDED OIL WELL, UZBEKISTAN © CRUDE ACCOUNTABILITY

billion, including 73% in its natural gas sector.¹⁰ In October 2019, China's Silk Road Fund, responsible for BRI-related investments, opened a \$585-million credit line for Uzbekneftegaz.¹¹

OIL AND GAS FIELD DEVELOPMENT

A 2006 agreement between CNODC and Uzbekneftegaz for exploratory work established the CNPC Silk Road Group. By 2011, there were a number of exploration wells, and the most promising area is the Karakul investment site in the Bukhara-Khiva region. In 2013, a joint venture, New Silk Road Oil & Gas, was established by the two companies to develop multiple gas condensate fields in Uzbekistan. China promises other ventures, including in the Aral Sea and Mingbulak oil field, but these efforts have proven unsuccessful.

In 2006, CNODC signed an agreement with Uzbekneftegaz for exploratory work at five investment locations over five years. By 2011, the CNPC Silk Road Group, created for this project, had completed the entire exploration program, including drilling exploration wells. Project investment totaled \$260.2 million.¹²

¹⁰ «Американцы открыли в Узбекистане месторождение с 10 млн тонн нефти», Фергана, 29.10.2019, <https://www.fergana.agency/news/112069/>

¹¹ «Китайские деньги пришли в нефтегаз новым путем», газета.uz, 22.10.2019, <https://www.gazeta.uz/ru/2019/10/22/fund/>

¹² «В 2017 г. СП CNPC и Узбекнефтегаза начнет разработку газовых месторождений на юго-западе Узбекистана», Neftegas.RU, 16.03.2017, <https://neftegaz.ru/news/gas/211921-v-2017-g-sp-cnpc-i-uzbekneftegaza-nachnet-razrabotku-gazovykh-mestorozhdeniy-na-yugo-zapade-uzbekist/>

The Karakul investment site had the most promising results in the Bukhara-Khiva region; three fields were found to have potential for industrial gas production. In 2013, CNODC and Uzbekneftegaz set up a joint venture, New Silk Road Oil & Gas, to build facilities for Dengizkul, Khojadavlet, and Sharkiy Alat gas condensate fields. Initially set to start in 2014, the project was launched in spring 2017 after Uzbekistan's government approved this development. The project cost totalled \$377.5 million.¹³ At design capacity, the fields should annually produce 869.6 million cubic meters of natural gas and 6.4 thousand tons of gas condensate.¹⁴ China Petroleum Engineering & Construction Corporation (a subsidiary of CNPC), XIBU Drilling Engineering Company Ltd., and China National Logging Corporation are the field's development contractors; the project is funded by Chinese loans guaranteed by CNPC.¹⁵ In December 2017, the project launched gas production from the Khojasayat block of the Bukhara region's Alat district. Gas will be produced both for the export and domestic markets. Future plans include developing the Khojadavlat and Sharkiy Alat fields, drilling new wells and repairing existing ones, and building a 43 km gas pipeline.¹⁶

Although some of China's investments in the Uzbekistan oil and gas sector were not profitable for China, they enabled CNPC to gain a strong foothold in the country. Less successful was CNPC's participation in the development of gas fields in Uzbekistan's Aral Sea sector. In late 2006, a production sharing agreement (PSA) was signed between the Uzbekistani government and the Aral Sea

Although some of China's investments in the Uzbekistan oil and gas sector were not very profitable for China, they enabled CNPC to gain a strong foothold in the country.

Operating Company, a consortium equally owned by CNPC, Uzbekneftegaz, Russian LUKOIL, Malaysian Petronas, and South Korean KNOC. The consortium had been set up for seismic exploration, drilling of exploratory wells, and developing deposits.¹⁷ In 2017, after ten years of work and at least \$150 million investment in the project, the joint venture was dissolved. Some investors left the project during the seismic survey: Petronas in 2011 and KNOC in 2013. Nevertheless, the consortium reported at least five promising gas-bearing structures plus the Western Aral field with estimated recoverable reserves of 9.1 bcm.¹⁸ Apparently, however, the estimated volume of hydrocarbons in the Aral Sea was not feasible for production, given the needed pipeline infrastructure investment.¹⁹

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ «Дочка» CNPC выкачивает газ из Узбекистана», SNG.TODAY, 07.12.2017, <https://sng.today/tashkent/5341-dochka-cnpc-vkachivaet-gaz-iz-uzbekistana.html>

¹⁷ «Узбекистан: Ислам Каримов разрешил пробурить в Аральском море три скважины», Фергана, 10.10.2011, <http://www.fergananews.com/news.php?id=17428>, weblink is no longer active

¹⁸ Дмитрий Козлов, «ЛУКОЙЛ выбрался из Арала», Коммерсантъ, 16.02.2017, <https://www.kommersant.ru/doc/3219937>

¹⁹ Ibid.

MINGBULAK OIL FIELD

After years of exploration and development of Mingbulak oil field, the largest country's BRI-related joint project, Uzbekistan's government declared the field unprofitable.

CNPC's other major but also unsuccessful project was its role in development of the Mingbulak oil field in Uzbekistan's Namangan region, perhaps the largest BRI-related joint project in the country, with reserves estimated at two million tons.²⁰

Discovered in 1992, Mingbulak is a difficult field due to the depths of its productive wells (over 5,000 m), high reservoir pressure, and high temperatures. The project is important for Uzbekistan: faced with an acute oil shortage, the country has about 500 marginal oilfields, which Uzbekistan has been unable to develop on its own. Having obtained the agreement to lay the Central Asian Gas Pipeline via Uzbekistan – so important for China – CNPC promised to participate in the exploration, development, and operation of Uzbekistan's marginal fields.

In 2007-2008, CNPC and Uzbekneftegaz signed several agreements on Mingbulak;²¹ and Mingbulakneft was formed as a joint venture in 2011. CNPC planned to invest \$255.31 million in that field's exploration and development over 25 years and to increase annual oil production to 200 thousand tons. However, the Mingbulak project again stalled for several reasons, including a fall in oil prices, and resumed in July 2017.²² The Chinese say that, due to the project's importance and unique features, its progress was personally supervised by CNPC Director, Wang Yilin.²³

In May 2019, Uzbekistan Ministry of Energy and Uzbekneftegaz announced that the field had finally started oil production. The news was picked up by the media, but some reports indicate that the Chinese had urged their Uzbek partners to wait for further confirmation.²⁴ Rightly so, because the Mingbulak well produced water instead of oil. Apparently, the leadership of Uzbekistan's oil and gas industry rushed to show some progress of this long-term project, but the result was embarrassing.²⁵ In November 2019, Uzbekistan's Ministry of Energy finally admitted that Mingbulak oil production was unprofitable.²⁶

²⁰ «Узбекистанцы с китайцами добыли первую нефть на месторождении Мингбулак», Фергана, 07.05.2019, <https://fergana.agency/news/107166/>

²¹ «Мингбулакское нефтяное месторождение», Neftegaz.RU, 09.07.2017, <https://neftegaz.ru/tech-library/mestorozhdeniya/142403-mingbulakskoe-neftyanoie-mestorozhdenie/>

²² «Узбекистанцы с китайцами добыли первую нефть на месторождении Мингбулак», Фергана, 07.05.2019, <https://fergana.agency/news/107166/>

²³ «Узбекнефтегаз» и CNPC обсудили поставки газа для четвертой нитки газопровода «Узбекистан – Китай», Подробно.uz, 18.09.2018, <https://podrobno.uz/cat/uzbekistan-i-kitay-klyuchi-ot-budushchego/uzbekneftegaz-i-cnpc-obsudil/>

²⁴ Алия Жанибек, «Нефтегаз Узбекистана: половина проектов за 20 лет выполнялась за взятки», Forbes Kazakhstan, 08.07.2019, https://forbes.kz/process/energetics/neftegaz_uzbekistana_polovina_proektov_za_20 лет_vyipolnyalas_za_vzyatki/

²⁵ Ibid.

²⁶ «Месторождение нефти Мингбулак оказалось нерентабельным», Kun.uz, 13.11.2019, <https://kun.uz/ru/71124165>

NATURAL GAS RESERVES AND EXPORTS TO CHINA

Uzbekistan's gas production has significantly declined since 2007. Depleting natural gas reserves have pushed the Uzbekistan government to replace domestic demand for natural gas with coal. Uzbekistan's government is opting to focus on further exports of natural gas to maintain budget integrity. Despite an unlikely increase in Uzbekistan's gas exports, China still views Uzbekistan as an important energy transit hub.

Natural gas transit via Uzbekistan to China is central to Uzbekistan-Chinese energy cooperation due to limited prospects of increased gas exports from Uzbekistan to China.

Uzbekistan is included in the world's twenty top gas-producing countries and among the top three gas producers in the Commonwealth of Independent States (CIS).²⁷ The country's proven natural gas reserves stand at 1.1 trillion cubic meters.²⁸ According to Uzbekneftegaz, in the recent decade the company has decreased natural gas production by 1.4 times from 59 bcm in 2007 to 42.3 bcm in 2017, and its oil production by 3.8 times from three to 0.8 million tons.²⁹

According to the Uzbekistan State Statistics Committee, the country's gas production totaled 59.8 bcm in 2018,³⁰ of which about 65% was produced by Uzbekneftegaz and 35% by foreign companies³¹ such as LUKOIL, Gazprom, Novatek, CNPC, and Total.³² Until recently, however, data on hydrocarbon production was classified as secret in Uzbekistan.³³

The reasons for this gas production decline by Uzbekneftegaz include a general depletion of natural resources and a fall in production at Kokdumalak, Gazli, Shurtan group, and Dengizkul; these fields have been in operation for over 35 years.³⁴ In addition, this gas requires intensive processing due to high sulfur content (2.5%-2.7%). Older fields need booster compression stations, adding to production costs.

Most of the new fields also produce high-sulfur gas, dramatically increasing development and transport preparation costs.³⁵ Adding to these technological challenges and resource depletion is the need to frequently repair main pipelines and gas distribution systems built in the 1960s and 1970s. These factors cause major operational losses of up to 25%.³⁶

²⁷ BP Statistical Review of World Energy, BP, 2019, <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html> 27.05.2020

²⁸ Жамолитдин Турдимов, «В Узбекистане зафиксировано снижение производства нефти и бензина», КУРСИВ, 20.09.2019, <https://kursiv.kz/news/otraslevye-temy/2019-09/v-uzbekistane-zafiksirovano-snizhenie-proizvodstva-nefti-i-benzina>

²⁹ Ibid.

³⁰ «Узбекистан в 2018 году сократил добычу нефти до 746,4 тысячи тонн», SPUTNIK, 17.01.2019, <https://uz.sputniknews.ru/Uzbekistan/20190117/10535073.html>

³¹ «Узбекнефтегаз» раскрыл долю иностранных компаний в добыче газа», Фергана, 12.07.2019, <https://fergana.agency/news/108950/>

³² «Американцы открыли в Узбекистане месторождение с 10 млн тонн нефти», Фергана, 29.10.2019, <https://www.fergana.agency/news/112069/>

³³ «Узбекнефтегаз» раскрыл долю иностранных компаний в добыче газа», Фергана, 12.07.2019, <https://fergana.agency/news/108950/>

³⁴ Жамолитдин Турдимов, «В Узбекистане зафиксировано снижение производства нефти и бензина», КУРСИВ, 20.09.2019, <https://kursiv.kz/news/otraslevye-temy/2019-09/v-uzbekistane-zafiksirovano-snizhenie-proizvodstva-nefti-i-benzina>

³⁵ Владимир Матвеев, «Переоценка роли центральноазиатских ресурсов в современной энергетической стратегии Китая», Проблемы Дальнего Востока, №4, 2018, стр.55-67, <https://ras.jes.su/pdv/s013128120000155-1-1>, на 24.05.2020

³⁶ Сергей Смирнов, «Газовая диета Узбекистана», РИТМ ЕВРАЗИИ, 29.03.2019, <https://www.ritimeurasia.org/news--2019-03-29--gazovaja-dieta-uzbekistana-41863>

In recent years, Uzbekistan has seen a marked increase in domestic gas consumption. According to some estimates, domestic gas consumption stands at about 50 bcm.³⁷ Uzbekneftegaz estimates that demand at about 39 bcm, given that half of the country's consumers have switched to liquefied gas.³⁸ However, gas exports are essential for the country's budget. Therefore, Tashkent has looked at various ways to increase gas exports such as replacing domestic consumption of natural gas with coal. Today, nearly a third of Uzbekistan's population must burn coal and wood to heat their homes in winter.³⁹

The Uzbek authorities decided to cut domestic gas consumption dramatically in 2016 in order to boost gas exports. As a result of these efforts, natural gas exports increased from 7.5 bcm to 11.4 bcm between 2015 and 2016.⁴⁰ Until recently, Russia's Gazprom was the main importer of Uzbek gas at about 7 bcm (2016)

at \$125 per 1,000 cm.⁴¹ However, once the Uzbek section of the Central Asian Gas Pipeline to China was completed with a \$1.5 billion loan from the China Development Bank, Uzbekistan increased its gas exports to China to 4.3 bcm in 2016⁴² as part of the loan repayment terms and conditions. Uzbekistan's debt is driving the country's plans to cut gas exports to Gazprom by 30% between 2018 and 2022 and to increase gas exports to China.⁴³ In 2019, Uzbekneftegaz planned to increase gas exports to 15 bcm, of which 8 bcm were to be exported to China and 4.5 bcm to Russia.⁴⁴

According to the Center for Economic Research, if the current resource consumption trends and volumes are maintained, Uzbekistan's reserves of natural gas and coal will last for 20-30 years, whereas the country's oil reserves are already virtually depleted.⁴⁵ The Uzbekneftegaz top management have confirmed the country's hydrocarbon reserves data.⁴⁶ Nevertheless, Uzbekistan

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of Uzbekistan's population must burn coal and wood to heat their homes in winter

³⁷ «Узбекнефтегаз, не теряя оптимизма, намерен в 2018 г увеличить добычу природного газа на 17%», Neftegaz.RU, 26.12.2017, <https://neftegaz.ru/news/dobycha/204425-uzbekneftegaz-ne-teryaya-optimizma-nameren-v-2018-g-uvlichit-dobychu-prirodnogo-gaza-na-17/>

³⁸ «Узбекнефтегаз» впервые раскрыл структуру экспорта газа», газета.uz, 12.07.2019, <https://www.gazeta.uz/ru/2019/07/12/gas-export/>

³⁹ Сергей Смирнов, «Газовая диета Узбекистана», РИТМ ЕВРАЗИИ, 29.03.2019, <https://www.ritmeurasia.org/news--2019-03-29--gazovaja-dieta-uzbekistana-41863>

⁴⁰ Владимир Матвеев, «Переоценка роли центральноазиатских ресурсов в современной энергетической стратегии Китая», Проблемы Дальнего Востока, №4, 2018, стр.55-67, <https://ras.jes.su/pdv/s013128120000155-1-1>, на 24.05.2020

⁴¹ Ibid.

⁴² Ibid.

⁴³ Сергей Смирнов, «Газовая диета Узбекистана», РИТМ ЕВРАЗИИ, 29.03.2019, <https://www.ritmeurasia.org/news--2019-03-29--gazovaja-dieta-uzbekistana-41863>

⁴⁴ «Узбекнефтегаз» впервые раскрыл структуру экспорта газа», газета.uz, 12.07.2019, <https://www.gazeta.uz/ru/2019/07/12/gas-export/>

⁴⁵ Жамолитдин Турдимов, «В Узбекистане зафиксировано снижение производства нефти и бензина», КУРСИВ, 20.09.2019, <https://kursiv.kz/news/otraslevye-temy/2019-09/v-uzbekistane-zafiksirovano-snizhenie-proizvodstva-nefti-i-benzina>

⁴⁶ «Узбекнефтегаз» впервые раскрыл структуру экспорта газа», газета.uz, 12.07.2019, <https://www.gazeta.uz/ru/2019/07/12/gas-export/>

intends to increase to 10 bcm its annual gas exports to China in 2020. Uzbekistan has reached the limits of its gas export capacity, and major further export is unrealistic.⁴⁷

If in 2018 Uzbekistan had plans to increase production from 57 to 63 bcm per year, in 2020 production fell by 18.1% and amounted to only about 47.1 bcm.⁴⁸ In 2020, Uzbekistan stopped gas supplies to Russia and reduced gas exports to China by three times due to the uncertainty of the market during the coronavirus pandemic and growing domestic demand.⁴⁹ In addition, in 2020, Gazprom began supplying 0.9 bcm of Turkmen gas to Uzbekistan. In the first quarter of 2021, it has already supplied 1.5 bcm.⁵⁰ Thus, in the first quarter of 2021, Uzbekistan bought three times more Turkmen gas than it could export to China (0.54 bcm).⁵¹ By the end of 2021, the volume of Uzbek gas supplies to China will potentially amount to 2 bcm.⁵² Against the background of a shortage of gas in the country, there is a sharp decline in exports, including to China.

In early 2020, Prime Minister Aripov said that Uzbekistan would halt the export of natural gas by 2025. Instead, Uzbekistan will process it for domestic use to alleviate the domestic gas shortage and address growing public discontent.⁵³

RETURN TO COAL

Interrupted gas and electrical supply are more frequent at all times of the year, leading to popular protests. Along with Uzbekistan's growing population, demand for oil and gas is only increasing. Despite growing demand, Uzbekistan's government refuses to raise prices due to concerns over popular unrest. To alleviate energy supply, Uzbekistan's government has decided to switch gas-reliant houses to coal, with residents also often using liquified gas, charcoal, wood, and manure.

In a preview of what is to come, the country is facing a serious problem with energy availability. According to official data, 87.5% of urban homes and 72.1% of rural ones are supplied with natural gas;⁵⁴ 90% of households have electricity.⁵⁵ Yet, interrupted gas and electricity supply, especially in rural areas, have affected Uzbekistan for years. At first these energy disruptions were mainly in winter, but increasingly in all seasons and in any weather.⁵⁶ In many regions of Uzbekistan, local residents have protested energy shortages, sometimes by blocking national highways, as they demand uninterrupted supply.⁵⁷

⁴⁷ Сергей Смирнов, «Газовая диета Узбекистана», РИТМ ЕВРАЗИИ, 29.03.2019, <https://www.ritimeurasia.org/news--2019-03-29--gazovaja-dieta-uzbekistana-41863>

⁴⁸ Брюс Панниер, «Энергокризис. Страны Центральной Азии вновь рассчитывают на уголь», Радио Азаттык, 13.10.2021, <https://rus.azattyq.org/a/central-asia-coal-power-shortages/31506460.html>

⁴⁹ «Узбекистан прекратил экспорт газа в Россию и вдвое сократил поставки в Китай», Фергана, 16.07.2020, <https://fergana.media/news/120215/>

⁵⁰ «Узбекистан покупает туркменский газ у «Газпрома», Газета.uz, 22.06.2021, <https://www.gazeta.uz/ru/2021/06/22/gas/>

⁵¹ Ibid.

⁵² Ibid.

⁵³ Вадим Ерзиков, «Узбекистан планирует прекратить экспорт газа», КУРСИВ, 20.01.2020, <https://kursiv.kz/news/otraslevye-temy/2020-01/uzbekistan-planiruet-prekratit-eksport-gaza>

⁵⁴ Ibid.

⁵⁵ «В Узбекистане дефицит электроэнергии и газа стал постоянным явлением», Krotov.org, 13.06.2018, <https://krotov.org/economics/world-economic/v-uzbekistane-deficit-elektroenergii-i-gaza-stal-postoyannym-yavleniem.html>

⁵⁶ Ibid.

⁵⁷ «В Намангане жители прогнали газовиков, пришедших обрезать трубы», Радио Озодлик, 10.05.2017, <https://rus.ozodlik.org/a/28478291.html>



STOCKING UP ON FIREWOOD, UZBEKISTAN © CRUDE ACCOUNTABILITY

Unlike in Soviet times, when the number of Uzbekistan's communities connected to natural gas increased annually, today, a steady decrease in such access is reported.⁵⁸ Households in many areas have returned to burning charcoal, firewood, and dried manure.

In the summer of 2017, Uzbekneftegaz Board Chairman Alisher Sultanov said that as his country gained independence, its natural gas supply system was neglected and allowed to decay. Therefore, he said, areas which for many years had lacked natural gas would remain so. His company intended to supply liquefied gas to residents of such areas and he encouraged them to use charcoal for heating.⁵⁹ In his statement, the Uzbekneftegaz head publicly admitted these long-standing problems were unaddressed and hushed up under long-time president of Uzbekistan Islam Karimov.

Entire regions, including Uzbekistan's second "capital" Samarkand, currently do not have access to natural gas in winter.⁶⁰ On the one hand, the authorities blame consumers who allegedly owe huge utility bills.⁶¹ Nevertheless, there are on substantial losses during gas production and transportation as well as with illegal connections to gas pipes. As a result, huge losses, inefficient

⁵⁸ «В Узбекистане наступил очередной сезон страданий из-за перебоев или отсутствия газа и электроэнергии», Фергана, 27.11.2012, <https://www.fergananews.com/news/19821>, weblink is no longer active

⁵⁹ «Узбекнефтегаз» - жителям Узбекистана: У вас в трубах нет газа десятилетиями? И не будет», Фергана, 15.06.2017, <http://www.fergananews.com/news.php?id=26523>, weblink is no longer active

⁶⁰ Ровшан Ибрагимов, «Эксперт: через двадцать лет Узбекистан может остаться без газа», Центр-1, 21.06.2017, <https://centre1.com/uzbekistan/ekspert-cherez-dvadsat-let-uzbekistan-mozhet-ostatsya-bez-gaza/>

⁶¹ «Узбекнефтегаз» - жителям Узбекистана: У вас в трубах нет газа десятилетиями? И не будет», Фергана, 15.06.2017, <http://www.fergananews.com/news.php?id=26523>, weblink is no longer active

use, and low domestic prices make internal sale of gas unprofitable. Uzbekistan's growing population - virtually doubled since its independence - also is a key factor.⁶² Uzbekistan's authorities are wary of raising domestic gas tariffs to avoid related increases in the prices of other goods and services. These issues might cause serious discontent and public protests from the country's mainly poor population.⁶³

Households in many areas have returned to burning charcoal, firewood, and dried manure.

The authorities decided to gradually switch people to using coal instead of gas as a potential solution. Based on 2013 data, household coal consumption has doubled and continue to increase. By some estimates, as of 2020 the people of Uzbekistan may need 2.4 million tons of coal per year.⁶⁴ According the Uzbekugol coal company, over 30 coal briquette factories were opened (as of 2015) in all major regions of Uzbekistan to supply the population with coal.⁶⁵ In 2020, organizations in Uzbekistan received 18.3% more coal for heating than in 2019 as gas production in the country fell by almost 20%.⁶⁶

⁶² Ровшан Ибрагимов, «Эксперт: через двадцать лет Узбекистан может остаться без газа», Центр-1, 21.06.2017, <https://centre1.com/uzbekistan/ekspert-cherez-dvadsat-let-uzbekistan-mozhet-ostatsya-bez-gaza/>

⁶³ Ibid.

⁶⁴ «Потребление угля в Узбекистане увеличилось в два раза», REGNUM, 12.03.2013, <https://regnum.ru/news/economy/1634849.html>

⁶⁵ «В Узбекистане обострилась проблема дефицита природного газа. Власти уверенно строят угольные фабрики», Фергана, 21.10.2015, <http://www.fergananews.com/news.php?id=24030>, weblink is no longer active

⁶⁶ «Поставки угля бюджетным организациям выросли на 18,3% на фоне падения производства газа», Газета.uz, 26.10.2020, <https://www.gazeta.uz/ru/2020/10/26/coal/>

Environmental Impact of Oil and Gas Operations

The oil and gas industry in Uzbekistan comprises over 50% of all industrial emissions. It is the second largest stationary air pollutant, and is the country's single largest GHG emitter. Although Uzbekistan is party to the UN Framework Convention on Climate Change and has ratified its Kyoto protocols and the Paris agreement, statistics reveal a 13.7% increase in GHG emissions since 1990.

The country lacks transparent data as well as data recording technology. Very few companies in Uzbekistan conduct environmental assessments and even this data is rarely published or publicly available.

The oil and gas industry officially has been recognized as the second largest stationary source of air pollution in Uzbekistan. Both the high sulfur content (up to 2.7%) in crude oil and the producers' failure to remove sulfur from exhaust gases add to high levels of sulfur dioxide emissions from thermal power plants, boiler houses, and oil refineries. These emissions accounted for 58.8% of all industrial emissions in Uzbekistan in 2010.⁶⁷

The energy sector is Uzbekistan's largest generator of GHG emissions: in 2012, it produced 168.1 million tons (in CO₂-equivalent), or 82% of the country's total GHG emissions.⁶⁸ Emission data from Uzbekistan's State Committee for Nature Protection shows a steady increase in emissions of most pollutants between 2009 and 2014; associated gas flaring is one of the largest sources of SO₂ and NO_x emissions.⁶⁹ Accessing detailed data on the environmental impact of Uzbekistan's oil and gas industry is challenging. The Nature Protection Committee's website provides general information on atmospheric emissions of pollutants between 2009 and 2011. This data shows that 65% of emissions from stationary sources are linked to the fuel and energy complex – no further details are provided.⁷⁰ The Center for the Hydrometeorological Service of Uzbekistan (Uzhydromet) website does not publish detailed data on environmental monitoring either, but only states that the country-wide 2019 level of

The most recent data on GHG emissions dates to 2012. The lack of more recent data hinders design of evidence-based measures to drive effective climate action.

⁶⁷ Environmental Performance Review: Uzbekistan ", UNECE, Second Review Synopsis, New York and Geneva, 2010, https://thepep.unece.org/sites/default/files/2017-06/uzbekistanEPR2_e.pdf, as of 27.05.2020

⁶⁸ Environmental Performance Review: Uzbekistan, UNECE, Third Review, Geneva, 2020, https://unece.org/fileadmin/DAM/env/epr/epr_studies/ECE_CEP.188.Eng.pdf, as of 27.05.2020

⁶⁹ Ibid.

⁷⁰ «Выбросы загрязняющих веществ в атмосферу», Государственный комитет Республики Узбекистан по охране природы, <http://nd.uznature.uz/page/vibrosi-zagryaznyayuschih-veschestv-v-atmosferu>, на 27.05.2020, weblink is no longer active

air pollution was within the norm.⁷¹

Uzbekistan is a party to the UN Framework Convention on Climate Change and has ratified the Kyoto Protocol and the Paris Agreement. The most recent data on GHG emissions dates to 2012 and indicates total emissions have increased by 13.7% since 1990.⁷² The lack of more recent data hinders design of evidence-based measures to drive effective climate action. Uzbekistan does not have special climate change laws, strategy guidelines, or a coordination mechanism. In 2019, Uzbekistan developed a national climate change adaptation plan. Most of its proposed measures focused on the energy sector, such as improved energy efficiency steps and an increase in renewable energy.⁷³ It is unclear whether the plan will address the rapid increase in coal consumption and include measures to decrease the new "coal dependence."

The Concept of Environmental Protection in the Republic of Uzbekistan (2019) acknowledges that the existing environmental monitoring system does not live up to current standards. The lack of a single database hinders objective assessment of the status of the environment.⁷⁴ As of January 1, 2021, some automatic stations were installed at new industrial facilities with high environmental impact.⁷⁵ The current monitoring system cannot generate quality environmental data.

Government statistics on air emissions are based on data from polluting companies, raising questions about the quality and reliability of these statistics.⁷⁶ Although all enterprises in Uzbekistan are required to conduct industrial environmental monitoring, only a few larger entities actually do. Companies are not required to publish data on their environmental impact, so they report only to government agencies and not to Uzbekistan's public.⁷⁷





DENGIZKUL LAKE © CRUDE ACCOUNTABILITY

PUBLIC ACCESS TO INFORMATION

Public awareness of environmental impacts, overall state of the environment, and input into the decision-making process is limited. Environmental information is restricted between government agencies and is not publicly available.

The public has limited access to environmental data and decision-making. The authorities admit that they do not usually hold public hearings about potentially hazardous operations, nor do they hire independent experts to conduct environment impact assessments (EIA).⁷⁸ It is left to the government authority tasked with the EIA and the business developer to decide whether to convene public hearings. The public has limited access to EIA data during the construction stage of any industrial facility. When public hearings were held, the public was not given access to information or an opportunity to participate at the EIA stage. The public was only involved after the actual start of construction. There have been reports that developers have provided misleading information during public hearings. Overall, there is low public awareness of environmental aspects of industrial operations in Uzbekistan.⁷⁹

The same holds true of wider public environmental awareness in Uzbekistan. The most recent National Report on the State of the Environment and the Use of Natural Resources was published in 2013 and covered the period between 2008 and 2011; it is not available online. Most other periodic

⁷⁸ «Об утверждении Концепции охраны окружающей среды Республики Узбекистан на период до 2030 года», regulation.gov.uz, 2019, <https://regulation.gov.uz/oz/document/3920>, на 27.05.2020

⁷⁹ Environmental Performance Review:: Uzbekistan, UNECE, Third Review, Geneva, 2020, http://www.unece.org/fileadmin/DAM/env/epr/epr_studies/ECE.CEP.188.Eng.pdf, as of 27.05.2020

environmental monitoring reports, e.g. by Uzhydromet, are only shared among official agencies. Except for Tashkent's air pollution bulletin, no other data on environmental monitoring is publicly available. There is no process to make environmental data publicly available.⁸⁰

In effect, this situation limits potential public participation in environmental decision-making, thus such participation is virtually nonexistent in Uzbekistan. Adding to the problem is the fact that Uzbekistan has very few NGOs active in promoting environmental compliance with practical experience with environmental litigation.⁸¹

OIL AND GAS COMPANIES' SOCIAL AND ENVIRONMENTAL POLICIES

Since laws do not require it, CNPC and Uzbekneftegaz do not publish data on their local environmental impact. Chinese companies refuse local media contact. LUKOIL voluntarily publishes data, including environmental assessments and impact.

Since companies are not officially required to publish environmental information on their current operations, they rarely, if ever, do so voluntarily.⁸² Therefore, no environmental impact information can be found on the websites of Uzbekneftegaz and CNPC.⁸³

The Chinese companies refuse to give comments or interviews to the local press. In December 2017, during celebrations marking the launch of gas production at the Khojasayat field by the New Silk Road Oil & Gas JV, journalists tried unsuccessfully to obtain a comment from the Chinese side; a CNPC spokesperson explained that their corporate policy did not provide for interactions with the mass media.⁸⁴

A few oil and gas companies in Uzbekistan voluntarily publish information on their environmental impact and environmental protection measures. One such company is Russian LUKOIL that produces gas and condensate in the Khauzak and Shady sites of the Dengizkul field⁸⁵ near the lake of the same name. Uzbekneftegaz and CNPC, as part of the New Silk Road Oil & Gas JV, also carry out gas development in the same area.

A review of publicly available information about LUKOIL Uzbekistan Operating Company (LUOC) and observations from Crude Accountability's field trip to the Dengizkul Lake area in the spring of 2019 reveal a striking difference between LUOC and the JV in terms of environmental impact accountability.

Dengizkul Lake is a protected area of international importance and home to more than a hundred waterfowl species; it also plays an important role in the conservation of wintering and migratory birds. Dengizkul is a public ornithological reserve and part of the network of Uzbekistan's

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Ibid.

⁸³ UZBEKNEFTEGAS, <http://www.ung.uz/>; Узбекистан, CNPC, https://www.cnpc.com.cn/ru/wzbkst/wzbkst_index.shtml, на 28.05.2020

⁸⁴ «Дочка» CNPC выкачивает газ из Узбекистана», SNG.TODAY, 07.12.2017, <https://sng.today/tashkent/5341-dochka-cnpc-vykachivaet-gaz-iz-uzbekistana.html>

⁸⁵ «Общая информация», ООО «ЛУКОЙЛ Узбекистан Оперейтинг Компани», <https://lucoil-international.uz/ru/About/GeneralInformation>, на 28.05.2020



CNPC SIGN NEAR DENGIZKUL © CRUDE ACCOUNTABILITY

key ornithological areas.⁸⁶ This is the first area in Uzbekistan to meet the selection criteria of the Ramsar Convention on Wetlands and be included in the Ramsar List.

Currently, LUOK operates 58 wells in the Khauzak and Shady sites, of which 10 are within Dengizkul Lake's 500-meter water protection zone.⁸⁷ Gas from the wells is fed to the Khauzak and Severnye Shady Gas Primary Treatment Facilities and then transported by pipeline to the Mubarek Gas Processing Plant (GPP). The project is located in an almost deserted area of the Alat district in the Bukhara region some 60 kilometers away from the cities of Alat and Mubarek, the nearest large settlements. Oil and gas production has been ongoing in the area for several decades. The Urtabulak and North Dengizkul gas condensate fields operated by Uzbekneftegaz are located 20 to 35 kilometers from the Khauzak-Shady site,⁸⁸ and the contract area of the New Silk Road Oil & Gas JV (CNPC) is also nearby.

Gas produced there has a high hydrogen sulfide content: 4.25% at the Dengizkul-Khauzak field and 5% at the Urtabulak field.⁸⁹ Gas development in the area requires special safety measures. In 1963, a major blowout accident occurred on natural gas wells at the Urta-Bulak field. An

⁸⁶ «План действий по сохранению биологического разнообразия участка Хауза-Шады», Сохранение биоразнообразия, ООО «ЛУКОЙЛ Узбекистан Оперейтинг Компани», Июнь 2016, сс.4,10, <https://luoil-international.uz/ru/Responsibility/Ecology>, на 28.05.2020

⁸⁷ Ibid, pp. 8, 10.

⁸⁸ Ibid.

⁸⁹ «Нефть, газ и энергетика Узбекистана», Neftegaz.RU, 24.06.2016, https://neftegaz.ru/analysis/oil_gas/328620-neft-gaz-i-energetika-uzbekistana/

uncontrolled fire continued for three years (1064 days), causing significant damage to the environment. After a few unsuccessful attempts, it was finally stopped by an underground nuclear explosion on September 30, 1966.⁹⁰

As a response to Dengizkul Lake's vulnerability and its status as a Ramsar site, LUOC developed and adopted its Khauzak-Shady Biodiversity Action Plan (BAP) in 2012. This document is one of the first conservation area management plans in Uzbekistan; it has been reviewed and approved by the Uzbekistan Society for the Protection of Birds.⁹¹

According to BAP, current threats to Dengizkul include shrinkage of space for natural lake ecosystems and loss of their flora and fauna components caused by human activity, including industrial development. The company has been taking steps to mitigate the impact of its operation – in particular, it conducts environmental and ornithological monitoring, checks the water level in Lake Dengizkul, hangs marking devices on power lines to avoid bird mortality from collisions, and restricts access for vehicles and workers to bird habitats. All discharges of the highly sulfurous gas without burning it are forbidden, and vented gas has to be flared to prevent emergencies; according to the company, flaring occurs regularly for short periods. Data from the environmental audit and EIA do not indicate any negative impact of the local flora and fauna by the LUOC operation.⁹² Each year, LUOC publishes the results from the environmental compliance monitoring of its operations in Uzbekistan. These reports contain data on atmospheric emissions, on the state of surface and ground waters, and on the impact on local flora and fauna at the Khauzak-Shady site. Although the information is without much detail, it is in the public domain.⁹³ LUOC's efforts to mitigate its environmental impact are part of the LUKOIL Group Policy for Health, Safety and Environmental Protection.⁹⁴

⁹⁰ «Пожар на месторождении «Урта-Булак», Экология Производства, <http://www.ecoindustry.ru/didyouknow/view/269.html>, на 28.05.2020

⁹¹ Action Plan to Preserve Biodiversity, LUKOIL, <https://csr2015-2016.lukoil.com/hse/biodiversity-conservation/biodiversity-program>, as of 28.05.2020

⁹² «План действий по сохранению биологического разнообразия участка Хауза-Шады», Сохранение биоразнообразия, ООО «ЛУКОЙЛ Узбекистан Оперейтинг Компани», Июнь 2016, сс.26,41,42,45,55, <https://lucoil-international.uz/ru/Responsibility/Ecology>, на 28.05.2020

⁹³ «Итоги ведомственного мониторинга состояния окружающей среды за 2019 год», Экологический мониторинг, ООО «ЛУКОЙЛ Узбекистан Оперейтинг Компани», <https://lucoil-international.uz/ru/Responsibility/Ecology>, на 28.05.2020

⁹⁴ «Политика в области промышленной безопасности, охраны труда и окружающей среды», Экология, ООО «ЛУКОЙЛ Узбекистан Оперейтинг Компани», <https://lucoil-international.uz/ru/Responsibility/Ecology>, на 28.05.2020

Field Observations

The Crude Accountability group did not observe major signs of pollution, other than flaring, at the LUOK facilities. In contrast, the neighboring Uzbekneftegaz site had visible signs of exposed pollutants, such as the open storage of sulfur and contaminated soil.

Despite LUOC's record as a responsible company, and its commitment to social investments in nearby communities, the issue of water, gas, and electrical supply to local residents remains unaddressed. Thus, LUOC distinguishes itself as separate from CNPC and Uzbekneftegaz but still fails to meet key local needs.

Crude Accountability observed that LUOC's facilities along the road were well-maintained and fenced off. There was no visible pollution or smell of gas, despite flares at some sites. The power line along the road was marked for safe passage of migratory birds. Local biologists familiar with LUKOIL's activities in Uzbekistan approve of the company's environmental policies and practices.

It is noteworthy that LUOC's the Biodiversity Action Plan claims that it does not have enough data on – not to mention control over – the Uzbekneftegaz operations nearby.⁹⁵ This fact is perhaps related to citing of excessive hydrogen sulfide atmospheric concentrations reported in LUOK's environmental compliance report, perhaps unrelated to LUOK's operation.⁹⁶ Indeed, during the Crude Accountability field trip, we drove past the Mubarek Gas Processing Plant operated by Uzbekneftegaz and observed open-air storage of sulfur, without any protection and very near the road. Close to the gas processing plant was a large greenhouse for vegetables on what was likely contaminated soil next to a major industrial facility. Sulfur is a by-product from gas supplied to the Mubarek Gas Processing Plant by LUOC, the New Silk Road Oil & Gas (CNPIC) JV, and others.

LUOC supports education, healthcare, culture, sports, and welfare of vulnerable populations.⁹⁷ Yet, LUOK's social responsibility programs do not address the needs of the local people in the Alat region affected by an interrupted supply of water, gas, and electricity. People use firewood (80%), natural gas (31%), and coal (23%) to heat their homes. Low gas pressure – or its absence – in gas distribution often means that people use firewood,⁹⁸ – including even saxaul, despite a ban on its cutting.⁹⁹ Living near gas fields without gas at home is the new norm in Uzbekistan. In this respect, LUKOIL does not differ from Uzbekneftegaz, which does not even promise to supply natural gas to people's homes.¹⁰⁰

⁹⁵ «План действий по сохранению биологического разнообразия участка Хауза-Шады», Сохранение биоразнообразия, ООО «ЛУКОЙЛ Узбекистан Оперейтинг Компани», Июнь 2016, с.44, <https://lucoil-international.uz/ru/Responsibility/Ecology>, на 28.05.2020

⁹⁶ «Итоги ведомственного мониторинга состояния окружающей среды за 2019 год», Экологический мониторинг, ООО «ЛУКОЙЛ Узбекистан Оперейтинг Компани», с.6, <https://lucoil-international.uz/ru/Responsibility/Ecology>, на 28.05.2020

⁹⁷ Благотворительность, ООО «ЛУКОЙЛ Узбекистан Оперейтинг Компани», <https://lucoil-international.uz/ru/Responsibility/Charity>, на 28.05.2020

⁹⁸ «План действий по сохранению биологического разнообразия участка Хауза-Шады», Сохранение биоразнообразия, ООО «ЛУКОЙЛ Узбекистан Оперейтинг Компани», Июнь 2016, с.26, <https://lucoil-international.uz/ru/Responsibility/Ecology>, на 28.05.2020

⁹⁹ Темир Исаев, «В Узбекистане значительно сократились территории саксаула», Подробно.uz, 03.02.2017, <https://podrobno.uz/cat/obchestvo/v-uzbekistane-znachitelno-sokratilis-territorii-saksaula/>

¹⁰⁰ «Узбекнефтегаз» - жителям Узбекистана: У вас в трубах нет газа десятилетиями? И не будет», Фергана, 15.06.2017, <http://www.fergananews.com/news.php?id=26523>

CONCLUSION

China's role in Uzbekistan's oil and gas sector is much less significant than its involvement in Kazakhstan and Turkmenistan. Yet, Uzbekistan plays a critical role in Central Asian gas transit to China. Based on available data, Tashkent, unlike its neighbor Ashgabat, has not yet fallen into Beijing's debt trap. However, China's influence as the country's key foreign investor is quite strong. In Uzbekistan, just as in Turkmenistan and elsewhere, China does not seek to assist the host country in addressing various challenges, including social and environmental issues, but pursues mainly its own business goals.



CHAPTER 4

TURKMENISTAN

Turkmenistan is one of the world's most closed and repressive countries, with an extensive presidential cult of personality, extreme authoritarian government, lack of civil liberties, and almost total suppression of civil society. This small country of some six million people has the world's fourth largest natural gas reserves. Over 70% of Turkmenistan's revenues derive from gas exports.

Turkmenistan

Turkmenistan is one of the world's most closed and repressive countries, characterized by the president's cult of personality, extremely authoritarian governance, absence of civil liberties such as freedom of speech, and suppression of civil society.¹ This small country of some 6 million people ranks fourth in the world in terms of proven natural gas reserves,² with more than 70% of the country's revenues coming from gas exports.³

CHINA: TURKMENISTAN'S LARGEST GAS CUSTOMER

Turkmenistan is heavily reliant on Chinese investments; China is the top market for Turkmen gas. Turkmenistan ranks second for Chinese investments in Central Asia. Most investments focus on natural gas exploration and processing, plus energy transport.

Turkmenistan is highly dependent on Chinese investments; China was the country's sole natural gas export market for three years until July 2019, when Gazprom resumed its purchase of Turkmen gas in a 5-year deal.⁴ China's official data noted a total of over 240 billion cubic meters (bcm) of natural gas imported from Turkmenistan after the Central Asia-China pipeline began to operate in December 2009.⁵ China became the largest market for Turkmen gas.

Turkmenistan ranks next to Kazakhstan in Chinese investments in Central Asia, even though the total amount has not been published.⁶ Chinese investments in Turkmenistan mainly support natural gas production and its transportation infrastructure.⁷ China's BRI defines Turkmenistan as a key long-term source of hydrocarbons and an important transport and transit hub connecting China to the Persian Gulf markets.⁸

The two countries' cooperation in the energy sector began in the 1990s, when Chinese companies first began exploration and well repair in Turkmenistan's oil and gas fields. The most prominent Chinese company then was SINOPEC; since 1997 it has operated on the Shatlyk, Dovletabad, Goturdepe, and other fields. In addition to providing contracted services, Chinese

¹ Turkmenistan, Crude Accountability, <https://crudeaccountability.org/turkmenistan/>, last accessed on 18 May 2020

² Turkmenistan, Wikipedia, <https://en.wikipedia.org/wiki/Turkmenistan>, last accessed on 18 May 2020

³ Сергей Смирнов, «Туркменистан: балансирование на газовой проволоке», Сауран, 26.04.2019, <http://cc-sauran.kz/rubriki/economika/232-turkmenistan-balansirovaniya-gazovoy-provoloke.html>

⁴ <http://kz.mofcom.gov.cn/article/scdy/202004/20200402954394.shtml>

⁵ China's Ministry of Commerce: Guide for foreign investment and cooperation countries for Turkmenistan (2019). The import figures are from December 2009 to 2019, <http://www.mofcom.gov.cn/dl/gbdqzn/upload/tukumansitan.pdf>

⁶ Константин Сыроежкин, «К итогам визита Си Цзиньпина в Центральную Азию: Туркменистан», Carnegie Endowment, 12.09.2013, <http://carnegieendowment.org/2013/09/12/ru-pub-52946>

⁷ Иван Ипполитов, «Китайско-туркменские отношения: от взаимной выгоды к неравному партнёрству?», Проблемы национальной стратегии №3 (42), 2017, <https://riss.ru/images/pdf/journal/2017/3/08.pdf>, на 18.05.2020

⁸ Руслан Изимов, «Китай и Туркменистан: региональное измерение», CABAR.asia, 17.08.2016, <http://cabar.asia/ru/ruslan-izimov-kitaj-i-turkmenistan-regionalnoe-izmerenie/>

specialists were collecting data on the country's geology, hydrocarbon reserves, and its domestic politics.⁹

In April 2006, Turkmenistan then-President Niyazov visited Beijing and signed an agreement between CNPC and the Turkmenistan Ministry of Oil and Gas taking cooperation to a new level. The parties agreed to build a natural gas pipeline from Turkmenistan to China, to supply per year 30 bcm of Turkmenistan's for 30 years, and to engage in joint development of hydrocarbon deposits on the right bank of the Amu Darya river.¹⁰ New agreements were signed in 2009 under President Gurbanguly Berdymukhamedov to supply 40 bcm of Turkmen gas to China annually and to commission the first stage of the Central Asian Gas Pipeline.¹¹ During his visit to China in November 2011, President Berdymukhamedov signed an agreement to increase gas exports to China to 65 bcm by 2021.¹² And so began "the CNPC era" in Turkmenistan.

MAIN PIPELINE TO CHINA

The three branches of the Central Asian Gas pipeline runs through Turkmenistan, Uzbekistan, and Kazakhstan, totaling 1,833 km, with a capacity of 55 bcm.

Construction of a fourth branch through Turkmenistan, Uzbekistan, Tajikistan, and Kyrgyzstan is underway. China has been the primary investor in the first three pipeline branches, as well as in its construction and technical support.

The construction of the Central Asian Gas Pipeline connecting Turkmenistan, Uzbekistan, and Kazakhstan with China began in August 2007 as a result of bilateral agreements between China and these countries. Stage one of the gas pipeline (branch A), with a throughput capacity of 15 bcm,¹³ became operational in December 2009,¹⁴ followed by branch B in 2010, which doubled the pipeline's capacity, and then branch C in 2014, brought the overall capacity to 55 bcm. The total length of the Central Asian mainline from Samandepa in Turkmenistan to Khorgos on the Kazakhstan-China border is 1,833 km.¹⁵ Two Central Asian gas pipeline branches run through Turkmenistan: the Malay-Bagtyarlyk pipeline operated by state-owned Turkmengaz and the other operated by CNPC starting at the Samandepa field in the Bagtyarlyk contract area.¹⁶

In September 2014, planning began for a fourth pipeline (branch D) to China of about 1,000 km, with a throughput capacity of 25–30 bcm. This pipeline was to start in Turkmenistan and transit Uzbekistan, Tajikistan, and Kyrgyzstan.¹⁷ Its construction, however, was halted for economic reasons. In 2019, the current gas pipeline was used at almost 100-percent capacity, causing a

⁹ Иван Ипполитов, «Китайско-туркменские отношения: от взаимной выгоды к неравному партнёрству?», Проблемы национальной стратегии №3 (42), 2017, <https://riss.ru/images/pdf/journal/2017/3/08.pdf>, на 18.05.2020

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Energy Charter Conference: Turkmenistan's Chairmanship Ashgabat, 2017, <http://www.energyashgabat2017.gov.tm/ru/news/5>, на 08.02.2020

¹⁷ Ibid.

renewed interest in construction of a fourth branch. Kyrgyzstan's leaders expressed willingness to step up its construction,¹⁸ Uzbekistan started to prepare its part of the pipeline construction at an estimated cost of \$800 million.¹⁹ So far, Tajikistan is the first country to begin construction of a pipeline tunnel.²⁰ Focused on securing access to the maximum possible amount of Turkmen gas, China supported these efforts. Strategically, in addition to increasing natural gas supply, branch D could strengthen China's position in Uzbekistan, Tajikistan, and Kyrgyzstan²¹ and, to a certain extent, decrease Kazakhstan's role as China's main transit hub and key partner in Central Asia.²²

China financed most construction of the first three branches' and provided technical support. The construction was financed by loans from the China Development Bank and the exporting countries to be repaid with natural gas deliveries. In addition, CNPC invested directly in the project and became the pipeline's main operator.²³ The total investment in the Central Asian Gas Pipeline construction was estimated at \$20 billion in 2009,²⁴ and the cost of each completed branch was about \$7 billion.²⁵

Turkmenistan's natural gas to pipeline branches A, B, and C is supplied from the fields in Bagtyarlyk contractual area developed by CNPC and from the Uzyngyi fields in the Lebap region (Malay, etc.), and the Galkynysh fields in the Mary region. They will supply gas to branch D once it becomes operational.²⁶ According to the Turkmen authorities, a total of 252.1 bcm of natural gas was pumped from Turkmenistan to China over the decade of the pipeline's operation.²⁷ In 2020, China reduced the volume of gas purchased from Turkmenistan by 18%;²⁸ with the recovery of the Chinese economy, gas supplies went up again. For the first eight months of 2021, Turkmenistan exported almost 31 bcm of natural gas – mainly to China.²⁹ Thus, the total volume of Turkmen gas supplies to China since the start of the gas pipeline has increased to over 300 bcm.³⁰

¹⁸ Д.Савосин, О.Бахтина, «Киргизия хочет активизировать строительство 4-й нитки МГП Средняя Азия - Китай», Neftegaz.RU, 15.03.2019, <https://neftegaz.ru/news/transport-and-storage/193822-kirgiziya-khochet-aktivizirovat-stroitelstvo-4-y-nitki-mgp-srednyaya-aziya-kitay/>

¹⁹ Д.Савосин, «Узбекистан и Китай ускорят строительство 4-й нитки МГП Центральная Азия - Китай», Neftegaz.RU, 22.07.2019, <https://neftegaz.ru/news/transport-and-storage/476316-uzbekistan-i-kitay-uskoryat-stroitelstvo-4-y-nitki-mgp-tsentrlnaya-aziya-kitay/>

²⁰ «Четвертая нитка газопровода Центральная Азия – Китай увеличит объем экспорта туркменского газа», Национальная Ассоциация нефтегазового сервиса, 21.08.2019, <https://nangs.org/news/world/chetvertaya-nitka-gazoprovoda-tsentrlnaya-aziya-kitay-uvelichit-obaem-eksporta-turkmenskogo-gaza>

²¹ М.Лаумулин, «Современный Туркменистан в поисках выхода из транспортно-коммуникационной ловушки», ISCA, <http://isca.kz/ru/analytics-ru/3218>, на 20.05.2020

²² Институт мировой экономики и политики, Астана, 2017, <http://iwep.kz/ru/imep-v-smi/2017-06-24/bolshie-peremeny>, на 24.06.2017, weblink is no longer active

²³ Иван Ипполитов, «Китайско-туркменские отношения: от взаимной выгоды к неравному партнёрству?», Проблемы национальной стратегии №3 (42), 2017, <https://riss.ru/documents/624/e96ffd02dccc44dc9339ac3642aada29.pdf>, на 18.05.2020

²⁴ Ibid.

²⁵ Фарход Аминжонов, «Игра «старыми картами»: чем грозит чрезмерная зависимость Туркменистана от китайского спроса на газ?», CAAN, 17.02.2017, <http://caa-network.org/archives/8406>

²⁶ Иван Ипполитов, «Китайско-туркменские отношения: от взаимной выгоды к неравному партнёрству?», Проблемы национальной стратегии №3 (42), 2017, <https://riss.ru/documents/624/e96ffd02dccc44dc9339ac3642aada29.pdf>, на 18.05.2020

²⁷ «CNPC: за 10 лет из Туркменистана в Китай поставлено 252,1 млрд. кубометров природного газа», 23.10.2019, <https://nangs.org/news/world/snpc-za-10-let-iz-turkmenistana-v-kitay-postavleno-252-1-mlrd-kubometrov-prirodnogo-gaza>

²⁸ «Правительство Туркменистана заявляет, что рассчиталось с Китаем за строительство газопровода», Радио Азатлык, 15.06.2021, <https://rus.azathabar.com/a/31306655.html>

²⁹ «Туркменистан за 8 месяцев 2021 года увеличил добычу и экспорт природного газа», TURKMENISTAN.RU, 16.09.2021, <https://www.turkmenistan.ru/ru/articles/45826.html>

³⁰ Ibid.



NATURAL GAS FACILITY NEAR DARVAZA IN TURKMENISTAN © ADOBE STOCK

At present, Turkmenistan exports between 30 and 40 bcm annually to China via the Central Asia-China pipeline from Turkmenistan, through Uzbekistan and Kazakhstan, and enters China via the West-East pipeline in Xinjiang.

DEVELOPING TURKMENISTAN'S GAS RESERVES

China is active in the most profitable gas fields in Turkmenistan, obtaining from the government the most favorable terms for any foreign company. Total estimated investments and loans by China and Chinese affiliated companies stand at \$23.13 billion.

In addition to gas purchase agreements and investments in gas delivery infrastructure, China has participated in the development of the largest and most profitable gas fields in Turkmenistan.

In the summer of 2007, after signing a PSA, CNPC started to develop fields on the right bank of the Amu Darya River.³¹ CNPC received an operator's 30-year license for the exploration and development of Samandep, Altyn Asyr, and several other gas fields in the Bagtyyarlyk contractual area. This was a huge success of Chinese diplomacy - no foreign company had ever obtained such favorable terms from the Turkmenistan government. According to CNPC, by mid-2014, the company's investment in the contract area totalled some \$4 billion, and the annual gas production

³¹ Иван Ипполитов, «Китайско-туркменские отношения: от взаимной выгоды к неравному партнёрству?», Проблемы национальной стратегии №3 (42), 2017, <https://riss.ru/documents/624/e96ffd02dccc44dc9339ac3642aada29.pdf>, на 18.05.2020

stood at 13 bcm in 2015.³² Gas is pumped from Bagtyarlyk to China via the Central Asian Gas Pipeline.

Chinese companies also participated in development of the Galkynysh group of gas fields in the Mary region. Soon after discovery of the fields, from 2006 until 2013 CNPC drilled exploratory wells in the largest, South Yolotan.³³ While the state-owned Turkmengaz is the official operator, the fields' development is mainly financed by Chinese loans. In 2009, the

State Development Bank of China gave \$4 billion loan to Turkmenistan for the South Yolotan field development, and in 2011 another loan of \$4.1 billion to finance the entire Galkynysh project.³⁴ Turkmenistan pledged to repay its debt to China with gas exports.³⁵ One contractor at Galkynysh is a CNPC subsidiary, Chuanqing Drilling Engineering Company Ltd., engaged in the design and construction of gas production facilities worth \$3.12 billion.³⁶ Therefore, a major portion of the Chinese loan for Galkynysh development is used to pay Chinese contractors.³⁷

In September 2013 Chinese President Xi Jinping visited Turkmenistan, and completion of the first stage of the Galkynysh was declared. The field was ready for annual production of some 30 bcm of gas, plus about 200 thousand tons of gas condensate and two million tons of sulfur annually. The parties signed a new loan agreement but its details were not disclosed. At the same time, Turkmengaz and China Development Bank signed a concessional loan agreement to finance the second stage of the Galkynysh development, including CNPC construction of a new gas processing complex with capacity of 30 bcm, thus increasing overall production to 60 bcm per year.^{38,39} Although the amount of required investment was not announced, Turkmenistan invested about \$10 billion⁴⁰ in the first phase, including \$8 billion provided by China. According to Syroezhkin, since the second stage will likely result in the same output as the first, it will also require at least \$10 billion investment.⁴¹

In addition to gas purchase agreements and investments in gas delivery infrastructure, China has participated in the development of the largest and most profitable gas fields in Turkmenistan.

³² Ibid.

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Туркменистан, CNPC, https://www.cnpc.com.cn/ru/tkmst/tkmst_index.shtml, на 21.05.2020

³⁷ Иван Ипполитов, «Китайско-туркменские отношения: от взаимной выгоды к неравному партнёрству?», Проблемы национальной стратегии №3 (42), 2017, <https://riss.ru/documents/624/e96ffd02dccc44dc9339ac3642aada29.pdf>, на 18.05.2020

³⁸ Ibid.

³⁹第一财经:《中石油:土库曼斯坦2020年对华年供气可逾650亿方》, <https://www.yicai.com/news/2987178.html>

⁴⁰ «Галкыныш. Крупнейшее газонефтяное месторождение Туркменистана», Neftegaz.RU, 05.05.2014, <https://neftgaz.ru/tech-library/mestorozhdeniya/142136-galkynysh/>

⁴¹ Константин Сыроежкин, «К итогам визита Си Цзиньпина в Центральную Азию: Туркменистан», Carnegie Endowment, 12.09.2013, <http://carnegieendowment.org/2013/09/12/ru-pub-52946>

THE GAS TRAP

Due to a combination of major Chinese loans and investments, the loss of other export partners, and declining prices, Turkmenistan has fallen into a “gas trap” with China.

Turkmenistan has a limited capacity to increase gas production and exports due to high production costs and limited export capacity via the Central Asian Gas pipeline. Thus, Turkmenistan's indebted status continues, and the country must repay Chinese debt through direct gas exchanges.

These natural gas deals have resulted in Ashgabat's high debt level to China, which has a powerful lever of influence over Turkmenistan's economy. Neither the general amount nor specifics of Chinese loans to Turkmenistan are known due to non-transparent transactions and scarce data. Some sources estimated the amount in the range of \$12 billion, of which about 90% were used to finance natural gas production and transportation.⁴² According to CADGAT, BRI-related investments in Turkmenistan between 2013 and 2018 totaled \$24.84 billion.⁴³ In any case, Turkmenistan's debt was large enough to curtail the profitability of natural gas exports to China, since a major portion of the proceeds from gas sales was used to loan repayment. In addition, the Chinese companies take some of the gas produced to repay loan obligations.⁴⁴ Thus, over 15 billion of the 34 bcm of natural gas transported to China in 2018 was CNPC's share of gas produced on the right bank of the Amu Darya.⁴⁵

Turkmenistan's debt dependency was further aggravated by the dramatic decline in hydrocarbon prices since 2014 as well as by the discontinuation of Turkmen gas exports to Russia and Iran. This has caused a major decrease in Turkmenistan's budget revenues. Gazprom had long been the largest importer of Turkmenistan gas and a main source of the country's revenues. Failing to reach agreement on a new contract price, the Russian company first reduced its imports by two thirds to 3.1 bcm in 2015 and then totally stopped buying gas from Turkmenistan in 2016.⁴⁶ Iran, also a long-term customer of Turkmenistan gas, importing some 6.7 bcm per year as of 2016,⁴⁷ in early 2017, was confronted with Turkmenistan's demand immediately to repay Iran's \$2 billion debt⁴⁸ – caused by Turkmenistan's unilateral 9-fold increase in natural gas prices in 2007 (up to \$360). Rejecting Iran's alternative repayment options, Turkmenistan discontinued its gas imports to Iran.⁴⁹ In August 2017, Iran launched a pipeline to transport domestic gas to its northern regions previously

⁴² Иван Ипполитов, «Китайско-туркменские отношения: от взаимной выгоды к неравному партнёрству?», Проблемы национальной стратегии №3 (42), 2017, <https://riss.ru/documents/624/e96ffd02dccc44dc9339ac3642aada29.pdf>, на 18.05.2020

⁴³ F.Aminjonov, A.Abylkasymova, A.Aimée, B.Eshchanov, D.Moldokanov, I.Overland, R.Vakulchuk, BRI in Central Asia: Overview of Chinese Projects, 2019, <http://osce-academy.net/en/research/cadgat/>, на 07.05.2020.

⁴⁴ М.Лаумулин, «Современный Туркменистан в поисках выхода из транспортно-коммуникационной ловушки», ISCA, <http://isca.kz/ru/analytics-ru/3218>, на 20.05.2020

⁴⁵ Сергей Гавричев, «Туркменистан: без нефти, но с газом», Нефть капитал, 02.08.2019, <https://oilcapital.ru/article/general/02-08-2019/turkmenistan-bez-nefti-no-s-gazom>

⁴⁶ Артур Топорков, «Туркмения лишилась крупного покупателя газа в лице Ирана», ВЕДОМОСТИ, 13.08.2017, <https://www.vedomosti.ru/business/articles/2017/08/14/729187-turkmeniya-lishilas-pokupatelya>

⁴⁷ Ibid.

⁴⁸ «В Иране заявили о прекращении поставок газа из Туркмении», EurAsia Daily, 31.07.2017, <https://eadaily.com/ru/news/2017/07/31/v-irane-zayavili-o-prekrashchenii-postavok-gaza-iz-turkmenii>

⁴⁹ Виктория Панфилова, «Невыносимое великопение Туркменистана», НЕЗАВИСИМАЯ, 11.12.2019, https://www.ng.ru/ideas/2019-12-11/7_7749_turkmenistan.html

supplied by Turkmenistan gas and did not plan to resume imports of Turkmenistan gas.⁵⁰ However, in September 2021, the parties agreed to resolve the gas dispute, perhaps thanks to the International Arbitration Court, which ruled in favor of Turkmenistan in 2020.⁵¹

As a result, in 2016-2017, Turkmenistan saw its export revenues fall to \$8-8.5 billion, almost half of its previous earnings between 2000 and 2014.⁵² Exports to China cannot offset this loss, since some proceeds paid off Turkmenistan's huge debt to Beijing. Moreover, according to some estimates, China bought Turkmenistan gas at far below world prices, and the Turkmenistan authorities receive about \$60 net for 1,000 cubic meters of gas.⁵³

This drop in export earnings has had a devastating effect on Turkmenistan's economy. Electricity, natural gas, water, and gasoline subsidies - paid to consumers for many years - were discontinued. Inflation and prices of essential goods soared.⁵⁴ The difficult economic situation forced Turkmenistan's authorities to renegotiate its natural gas exports to Russia to 5.5 bcm annually. The agreement, signed in the summer of 2019, allows Turkmenistan to slightly

The drop in export earnings has had a devastating effect on Turkmenistan's economy. Electricity, natural gas, water, and gasoline subsidies - paid to consumers for many years - were discontinued. Inflation and prices of essential goods soared.

diversify its gas revenues, thus reducing its dependence on exports to China.⁵⁵ Since 2020, part of the Turkmenistan gas purchased by Gazprom has gone to Uzbekistan. Today, China remains the main importer of Turkmen gas, purchasing about 85% of the country's total volume of natural gas.⁵⁶

The Turkmenistan authorities have been investing heavily in the development of the giant Galkynysh field. However, the gas deposits there lie very deep underground and have a high sulfur content (about 6%), making their extraction and processing to a marketable condition very expensive and potential profits relatively low.⁵⁷ The possibility of increasing exports to China via the Central Asian Pipeline is limited, as 35 bcm of the pipeline's 55 bcm capacity is allocated to Turkmenistan, and the rest is reserved for use by Kazakhstan and Uzbekistan.⁵⁸

⁵⁰ Артур Топорков, «Туркмения лишилась крупного покупателя газа в лице Ирана», ВЕДОМОСТИ, 13.08.2017, <https://www.vedomosti.ru/business/articles/2017/08/14/729187-turkmeniya-lishilas-pokupatelya>

⁵¹ Е. Свинцова, «Туркменистан и Иран снова намерены решить газовый вопрос», Neftegaz.RU, 20.09.2021, <https://neftegaz.ru/news/politics/697703-turkmenistan-i-iran-namereny-reshit-gazovyy-vopros/>

⁵² Сергей Смирнов, «Туркменистан: балансирование на газовой проволоке», Сауран, 26.04.2019, <http://cc-sauran.kz/rubriki/economika/232-turkmenistan-balansirovaniya-gazovoy-provoloke.html>

⁵³ Ibid.

⁵⁴ Сергей Гавричев, «Туркменистан: без нефти, но с газом», Нефть капитал, 02.08.2019, <https://oilcapital.ru/article/general/02-08-2019/turkmenistan-bez-nefti-no-s-gazom>

⁵⁵ Ibid.

⁵⁶ Виктория Панфилова, «Невыносимое великопение Туркменистана», НЕЗАВИСИМАЯ, 11.12.2019, http://www.ng.ru/ideas/2019-12-11/7_7749_turkmenistan.html

⁵⁷ Ibid.

⁵⁸ Артур Топорков, «Туркмения лишилась крупного покупателя газа в лице Ирана», ВЕДОМОСТИ, 13.08.2017, <https://www.vedomosti.ru/business/articles/2017/08/14/729187-turkmeniya-lishilas-pokupatelya>

In June 2021, Deputy Prime Minister of Turkmenistan Shahim Abdrakhmanov announced that the country had fully repaid its debt to China for financing its share in the construction of the Turkmenistan-China gas pipeline and the development of the Galkynysh field. This statement did not include any specific figures on how much gas was exported to China to repay the debts and how much profit was received. At a government meeting in March 2021, officials openly announced that Turkmenistan had borrowed more than \$ 8.8 billion from China to implement projects related to the export of gas to China. However, in the absence of reliable data, any statements by Turkmenistan's officials are unverifiable.⁵⁹

In June 2021, Turkmenistan announced that CNPC would provide services for the construction of new wells in the Galkynysh field. The wells would supply China 17 bcm of gas annually for three years.⁶⁰ No details about the terms of the deal were provided. The media reported that three wells will be constructed.⁶¹ According to Reuters, \$8.8 billion is too large a sum for the amount of work, given that in April 2021, Turkmenistan exported gas to China at \$216 per thousand cubic meters.⁶²

A major importer of Turkmenistan gas, China takes advantage of this deal and will still dictate terms until all of Turkmenistan's debt is paid.⁶³ Thus, China is wary of Ashgabat's attempts to diversify its export destinations and insists on participating in projects such as the Central Caspian Gas Pipeline and the Turkmenistan-Afghanistan-Pakistan-India (TAPI) Gas Pipeline.⁶⁴ Yet the implementation of these projects is still a big question.⁶⁵

Even inside Turkmenistan, Chinese companies are trying to prevent the involvement of other investors, as was the case when Turkmenistan attempted to attract Japanese capital for the development of oil and gas fields in 2013.⁶⁶ According to observers, in a situation where Chinese companies hold almost all contracts for natural gas infrastructure construction and maintenance in Turkmenistan, one could say the Chinese are purchasing Turkmen gas from themselves.⁶⁷

⁵⁹ Правительство Туркменистана заявляет, что рассчиталось с Китаем за строительство газопровода», Радио Азатлык, 15.06.2021, <https://rus.azathabar.com/a/31306655.html>

⁶⁰ «Туркмения: CNPC построит новые скважины на крупнейшем в мире месторождении газа», СНПС-Актобемунайгаз, 28.06.2021, http://www.cnpc-amg.kz/?p=vlov_49

⁶¹ «Китай набуриет в Туркмении скважин по бартеру», EADaily, 27.08.2021, <https://eadaily.com/ru/news/2021/08/27/kitay-naburit-v-turkmenii-skvazhin-po-barteru>

⁶² Ibid.

⁶³ Виктория Панфилова, «Невыносимое великолепие Туркменистана», НЕЗАВИСИМАЯ, 11.12.2019, http://www.ng.ru/ideas/2019-12-11/7_7749_turkmenistan.html

⁶⁴ Д.Савосин, О.Бахтина, «Консорциум европейских и китайских компаний готов построить Транскаспийский газопровод», Neftegaz.RU, 13.08.2019, <https://neftegaz.ru/news/transport-and-storage/480357-konsortium-evropeyskikh-i-kitayskikh-kompaniy-gotov-postroit-transkaspiskiy-gazoprovod/>; Д.Савосин, О.Бахтина, «Китай хочет присоединиться к газопроводу ТАПИ?», Neftegaz.RU, 23.11.2018, <https://neftegaz.ru/news/transport-and-storage/196774-kitay-khochet-prisoedinit'sya-k-gazoprovodu-tapi/>

⁶⁵ Сергей Смирнов, «Туркменистан: балансирование на газовой проволоке», Сауран, 26.04.2019, <http://cc-sauran.kz/rubriki/economika/232-turkmenistan-balansirovaniya-gazovoy-provoloke.html>

⁶⁶ <https://cabar.asia/ru/ruslan-izimov-kitaj-i-turkmenistan-regionalnoe-izmerenie/>

⁶⁷ М.Лаумулин, «Современный Туркменистан в поисках выхода из транспортно-коммуникационной ловушки», ISCA, <http://isca.kz/ru/analytics-ru/3218>, на 20.05.2020

Environmental Impact of Gas Operations

Turkmenistan's public has virtually no access to environmental information or decision-making. The Turkmen government has made it almost impossible for independent NGOs to operate in the country. The oil and gas industry is a key sources of pollution in the country, the main source of GHG emissions, and the single largest source of air pollution.

Emissions have increased primarily within areas that supply China with natural gas, along with greater levels of gas flaring and discarded gas emissions.

Turkmenistan is a party to the United Nations Framework Convention on Climate Change (UNFCCC), the Aarhus Convention, and has ratified the Kyoto Protocol.

The intensive development of natural gas fields in Turkmenistan involving Chinese companies inevitably affects the environment. Turkmenistan's highly secretive policies, scarcity of official environmental information, and virtual absence of environmental impact data from Chinese companies operating in the country make it nearly impossible to estimate the scale and results of such damage.

The oil and gas industry is officially recognized as one of the country's main polluters.⁶⁸ Indeed, Turkmenistan's rapidly growing oil and gas production and processing sector – which in 2009 accounted for 73% of the country's industrial activity – is the main source of air pollution.⁶⁹ Its emissions contribute 75%-80% of the country's total emissions and 75%-95% of all emissions from stationary sources in western and eastern

Turkmenistan.⁷⁰ While government officials insist that they have detailed data on the sources and amounts of oil and gas pollution, no such data has been published.⁷¹ Nor does official information clarify if there are adequate environmental protection measures. This lack of public information

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⁶⁸ «Состояние окружающей среды Туркменистана», Программа ООН по окружающей среде, Министерство охраны природы Туркменистана, Ашхабад 2008, стр.128, http://www.cawater-info.net/ecoindicators/pdf/eco_tur_ru.pdf, на 22.05.2020

⁶⁹ «Turkmenistan Environmental Performance Review. First Review», UN ECE, New York and Geneva, 2012, http://www.unece.org/fileadmin/DAM/env/epr/epr_studies/Turkmenistan.pdf, на 22.05.2020

⁷⁰ Ibid.

⁷¹ Ibid.



ABANDONED GAS INSTALLATION IN THE DARVAZA DESERT, TURKMENISTAN © ADOBE STOCK

likely indicates that numerous environmental challenges have not been addressed and that action is needed at the local and national levels.⁷²

Most of Turkmenistan's oil and gas fields are located in the Karakum Desert, which is particularly vulnerable to human impacts. The construction and operation of oil and gas production complexes, gas pipelines, shift camps, and access roads all affect the desert flora and fauna. The disruption of soil and vegetation causes further desertification. In addition, oil and gas development leads to imbalances in the subsoil, changing hydrogeological conditions, which ultimately affects surface and ground water, soil, and vegetation.⁷³ The extraction of hydrocarbons draws out stratal waters, which contain harmful impurities and release highly toxic hydrogen sulfide, contributing to the contamination of aquifers, soil, surface waters, and air.⁷⁴

Most newly discovered gas fields in Turkmenistan are deep (4,000 to 7,000 meters) and have a high hydrogen sulfide content.⁷⁵ At the Galkynysh field, sulfur is utilized as a byproduct when hydrogen sulfide is removed from natural gas. But at the Dovletabat field, in use since 1983, there is

⁷² Ibid.

⁷³ И.Лурьева, «Экологически эффективные технологии разработки газовых месторождений», Проблемы освоения пустынь, №3-4, 2012, стр.45-48, http://www.science.gov.tm/files/desert_3-4-2012.pdf, на 24.05.2020

⁷⁴ И.Лурьева, «Экологические аспекты разработки газовых месторождений», Проблемы освоения пустынь, №3-4, 2014, стр.85-87, http://www.science.gov.tm/files/desert_3-4_2014.pdf, на 24.05.2020

⁷⁵ Владимир Матвеев, «Переоценка роли центральноазиатских ресурсов в современной энергетической стратегии Китая», Проблемы Дальнего Востока, №4, 2018, стр.55-67, <https://ras.jes.su/pdv/s013128120000155-1-1>, на 24.05.2020

no utilization of hydrogen sulfide removed from gas,⁷⁶ leading to environmental pollution. Sulfur dioxide is the most common, but far from the only, toxic waste product released into the atmosphere and contaminating the soil and groundwater.⁷⁷ According to the 2011-2016 report of Turkmenistan's State Statistics Committee, the Mary region ranked third (79.8 thousand tons), and the Lebap region ranked fourth (59.6 thousand tons) for emissions in 2015.⁷⁸ These regions host the main fields from which gas is exported to China. Sulfur dioxide emissions increased almost four-fold over this period, from 6.8 thousand tons in 2011 to 26.8 thousand tons in 2016.⁷⁹

Gas flaring is another major environmental problem caused by hydrocarbons. Hydrocarbon extraction and processing in Turkmenistan generates large volumes of associated gas, which are not only flared, but also discarded into the atmosphere. No consistent and reliable statistics on gas flaring are available in Turkmenistan. The PSAs give no indication on how and when the environmental hazards, such as associated gas, must be addressed. Most likely, there are only minor penalties for flaring or discarding associated gas into the atmosphere.⁸⁰ Based on a satellite data survey of gas flaring, the US National Oceanic and Atmospheric Administration (NOAA) reported an increase in associated petroleum gas (APG) flaring in Turkmenistan between 1995 and 2006.⁸¹ According to the Global Gas Flaring Reduction initiative, gas flaring in Turkmenistan increased from 0.4 bcm in 1994 to 1.4 bcm in 2008.⁸²

In August 2021, Kayrros SAS satellite detected two large methane leaks near gas fields and that carry gas to Russia and China. A leak of about 172 tons of methane per hour was recorded from the pipeline to Russia. A leak of 50 tons of methane per hour was discovered near a gas field that supplies China.⁸³ The emission of such volumes of gas per hour is equivalent to the emissions of 11 thousand vehicles in the UK during the year.⁸⁴ Greenhouse gas leaks in Turkmenistan occur

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⁷⁶ И.Лурьева, «К разработке сероводородсодержащих месторождений природных газов», Проблемы освоения пустынь, №1-2, 2015, стр.90-92, http://www.science.gov.tm/files/desert_1-2-2015.pdf, на 24.05.2020

⁷⁷ И.Бусыгин, «Экологические проблемы переработки серосодержащего сырья газоконденсатных месторождений», Вестник ОГУ, №12, 2006, стр.65-71, http://vestnik.osu.ru/2006_12/12.pdf, на 24.05.2020

⁷⁸ «Выбросы загрязняющих веществ в Туркменистане. Статистические данные за последние годы», МЕТЕОЖУРНАЛ, 18.01.2020, <http://meteojournal.ru/stati/vybrosy-zagryaznyayushhih-veshhestv-v-turkmenistane-statisticheskie-dannye-za-poslednie-gody/>

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Ibid.

⁸³ Aaron Clark, «Methane Plumes Spotted Near Central Asia Pipes to China, Russia», Bloomberg, 16.09.2021, <https://www.bloomberg.com/news/articles/2021-09-16/methane-plumes-spotted-near-turkmenistan-pipes-to-china-russia>

⁸⁴ Ibid.

regularly. Satellite observations over the past few years show serious methane emissions near oil and gas infrastructure in the western and eastern regions of the country.⁸⁵

Turkmenistan accounts for 31 of the 50 most severe methane emissions in 2019 analyzed by Kayrros SAA.⁸⁶ In February 2021, the Canadian company GHGSat Inc. detected eight sources of methane emissions in Turkmenistan using satellite imagery. These emissions leak 10 tons of gas per hour into the atmosphere. In November 2020, the same company found a gas leak at the Korpedzhe field.⁸⁷

Methane emissions are caused by dilapidated and poorly maintained infrastructure, lack of compliance with environmental standards, and lack of effective monitoring of emissions, as well as inaction of officials.⁸⁸ Methane is a greenhouse gas that has a significant impact on global warming. According to a 2020 analysis by the International Energy Agencies, Turkmenistan is second only to Libya and Venezuela in terms of methane per unit of energy produced.⁸⁹ Although regular flaring and venting has been banned in Turkmenistan since 1999,⁹⁰ much work is undone to reduce emissions and APG flaring in Turkmenistan.⁹¹

According to a 2020 analysis by the International Energy Agencies, Turkmenistan is second only to Libya and Venezuela in terms of methane per unit of energy produced.

Turkmenistan is a party to the United Nations Framework Convention on Climate Change (UNFCCC) and has ratified the Kyoto Protocol. Its major sources of GHG emissions are the oil and gas industry (51.9%), the electricity sector (15.7%), and transport (4.5%).⁹² Turkmenistan is one of the world's 50 biggest GHG emitters; according to experts, its emissions increased between 2004 and 2011, in particular due to hydrocarbon production, and will be even higher with increased exploration and development.⁹³

⁸⁵ Ibid.

⁸⁶ Aaron Clark and Matthew Campbell, «Turkmenistan's Dirty Secret», Bloomberg, 19.10.2021, <https://www.bloomberg.com/features/top-methane-gas-leak-problem-2021/>

⁸⁷ «Со спутника в очередной раз зафиксировали утечки метана в Туркменистане», Хроника Туркменистана, 16.09.2021, <https://www.hronikatm.com/2021/09/methane-leaks-3/>

⁸⁸ Aaron Clark and Matthew Campbell, "Turkmenistan's Dirty Secret," Bloomberg, 19.10.2021, <https://www.bloomberg.com/features/top-methane-gas-leak-problem-2021/>

⁸⁹ Aaron Clark, "Methane Plumes Spotted Near Central Asia Pipes to China, Russia," Bloomberg, 16.09.2021, <https://www.bloomberg.com/news/articles/2021-09-16/methane-plumes-spotted-near-turkmenistan-pipes-to-china-russia>

⁹⁰ Aaron Clark and Matthew Campbell, "Turkmenistan's Dirty Secret," Bloomberg, 19.10.2021, <https://www.bloomberg.com/features/top-methane-gas-leak-problem-2021/>

⁹¹ «Turkmenistan Environmental Performance Review. First Review», UN ECE, New York and Geneva, 2012, стр.184, http://www.unecce.org/fileadmin/DAM/env/epr/epr_studies/Turkmenistan.pdf, на 22.05.2020

⁹² Ibid.

⁹³ Ibid.

ACCESS TO INFORMATION AND PUBLIC PARTICIPATION

Access to environmental information and public participation in environmental decision-making are extremely limited. CNPC does not provide any information on its environmental impact, and only limited data on its social investments.

Although Turkmenistan is a party to the Aarhus Convention,⁹⁴ access to environmental information and public participation in environmental decision-making are extremely limited. The country does not regularly publish state-of-environment reports: such data is not on the websites of those public officials in charge of environmental protection nor available to the public.⁹⁵ Environmental statistics are restricted and not included in the Statistics Committee's website. A statistical yearbook on environmental protection and use of natural resources is published annually but only available to certain government departments.⁹⁶ National data on emissions of main pollutants is published in a few sources; but this data is neither complete nor consistent, and may be contradictory. Much data stored by government agencies is not digitized, making access difficult.⁹⁷

According to the 2012 Environmental Performance Review, the public has only participated in a few cases assessing environmental impact.⁹⁸ After 2003, when Turkmenistan amended the Law on Public Associations, it is almost impossible for independent NGOs to operate in the country. Recently, Turkmenistan increased repression of environmentalists and other civil society activism. Public environmental assessment of projects is almost impossible.⁹⁹

Recently, Turkmenistan has increased repression of environmentalists and other civil society activism, effective public environmental assessment of projects is almost impossible.

As for public data from oil and gas companies such as CNPC, the company's webpage on Turkmenistan lacks environmental impact data or related details. There is only a general assertion that the company "consistently complies with the host country's laws and regulations, and fully respects local cultural traditions, morals and customs."¹⁰⁰ Data on CNPC's charitable activity is similar. During the Amu Darya River Right Bank Natural Gas Project in 2007-2014, CNPC invested over \$3 million in improving the local environment; supporting cultural events, education and

⁹⁴ The United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, adopted in 1998 in the city of Aarhus.

⁹⁵ «Turkmenistan Environmental Performance Review. First Review», UN ECE, New York and Geneva, 2012, http://www.unece.org/fileadmin/DAM/env/epr/epr_studies/Turkmenistan.pdf, as of 22.05.2020

⁹⁶ Ibid.

⁹⁷ Ibid.

⁹⁸ Ibid.

⁹⁹ Туркменистан, Crude Accountability, <https://ru.crudeaccountability.org/kampanii/turkmenistan/>, на 18.05.2020

¹⁰⁰ «Первая очередь газового проекта реки Амударьи», CNPC, <https://www.cnpc.com.cn/ru/amhyggc/amhyggc.shtml>, на 24.05.2020

healthcare; and assisting people with disabilities.¹⁰¹ In Turkmenistan CNPC undertook its largest public welfare project in Central Asia: investing some \$4 million in a water treatment plant to supply drinking water to 6,000 residents of Mekan, a village near the Bagtyyarlyk Contract Area.¹⁰²

CONCLUSION

China is dominant – almost a monopoly – in production and import of Turkmenistan's natural gas due to its strategic actions and major investments – increased by Turkmenistan's problematic gas exports to other countries.

Turkmenistan's political system – which Beijing finds favorable – has further strengthened China's position in the country. Turkmenistan is still the largest exporter of natural gas to China – its main gas market. This Chinese export dependence has landed Ashgabat in a debt trap. Yet that country's gas exports to China still do not supply enough revenues to Turkmenistan's budget. Instead, the two countries' oil and gas partnership further aggravates Turkmenistan's economic crisis.

Today, Turkmenistan does not have enough alternative markets for its gas, thereby limiting its negotiating power with China to improve export conditions. China is not willing to help Turkmenistan with its numerous challenges, likely to grow in urgency and severity. Instead, Chinese companies in Turkmenistan are driven by business only and do not seek to play a socio-economic role.

¹⁰¹ «Завершено строительство второго ГПЗ на договорной территории «Багтыярлык», CNPC, <https://www.cnpc.com.cn/ru/amhdetrqclc/amhdetrqclc.shtml>, на 24.05.2020

¹⁰² «Завершено строительство второго ГПЗ на договорной территории «Багтыярлык», CNPC, <https://www.cnpc.com.cn/ru/amhdetrqclc/amhdetrqclc.shtml>, на 24.05.2020

RECOMMENDATIONS



Recommendations

FOR CENTRAL ASIAN GOVERNMENT AUTHORITIES

To reduce and/or prevent negative environmental and social impacts from China's regional oil and gas projects, Central Asian governments should ensure:

- reporting detailed project data and details to the public in accordance with national laws and international commitments;
- requiring Chinese project information transparency on par with Western companies in the region;
- adhering to the Aarhus Convention commitments;
- conducting strategic environmental risk assessment (SEA) of plans and programs of cooperation with China, as well as environmental performance;
- carrying out SEA of infrastructure projects (pipelines, roads, ports) with broad public participation;
- ensuring public assessment of Environmental Impact Assessments (EIA) for China's projects. Public opinions and comment should be factored into decision-making processes;
- SEA and EIA in accordance with standards, the Espoo Convention and the Protocol on SEA;
- relying on Chinese guidelines for dialogue with Chinese suppliers and ensuring their compliance.

FOR CHINESE COMPANIES, PARASTAL ENTITIES, AND GOVERNMENT AUTHORITIES

All companies working in the region should:

- fulfill the Guidance on Promoting Green Belt and Road in following local environmental protection laws, regulations, standards and codes, honoring environmental and social responsibilities, and publishing annual environmental reports;
- enable transparency and public access to data along with public consultation, obtaining input from affected communities and other relevant parties to minimize project risks, and reformulate design or locate alternatives to proposed projects;
- enable public release of draft environmental and social assessments to affected communities and other third parties to minimize project risks, reformulate design, or locate alternatives;
- ensure effective mechanisms for the prompt resolution of grievances of the relevant local population;
- Chinese parastatal companies and government bodies should strictly adhere to China's obligations under the UN Treaty the International Covenant on Economic, Social, and Cultural

Rights (“Treaty on ESC Rights”) especially that State Parties undertake steps to achieve the fullfil all aspects of environmental and industrial hygiene;

- State parties must protect and prevent infringements of Covenant rights outside their territories due to business activity which they can control, under comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social and Cultural Rights by Committee on Economic, Social and Cultural Rights;

- China’s embassies should inform citizens and engage with non-governmental organizations to exchange views about China’s regional activities.

FOR CENTRAL ASIAN CIVIL SOCIETY

Local civil society should:

- demand local government provide transparent information on Chinese investments. The transparency of China’s companies should be on par with requirements from other foreign investors;

- require local authorities to strictly observe implementation of the provisions of the Aarhus Convention obligations;

- monitor implementation of the guiding principles of The Greening of the Belt and Road on regional projects;

- contact Chinese government authorities and host governments on specific violations of China’s environmental obligations and standards;

- promote the strategic environmental risk assessment of China’s large regional infrastructure projects;

- develop cooperation with Central Asian academia, the media, and parliamentary deputies to discuss and participate in environmental monitoring of China’s projects in the region.

CONCLUSION



Conclusion

This Crude Accountability report examines policymaking, government, and corporate responsibility, economic and environmental sustainability, and the social impact of Chinese investments in Central Asian oil and gas sector. We focus on three countries – Kazakhstan, Uzbekistan, and Turkmenistan – outlining numerous problems related to these investments. We provide a rare personal glimpse at those communities most affected by Chinese oil and gas development.

Driven by business and profit, Chinese companies in Central Asia do not follow a corporate responsibility model. They do not improve the socio-economic situation for those communities near their enterprises. Local governments do not enforce environmental and other laws to protect the local population. Chinese companies exacerbate existing environmental problems, as in the case of Kazakhstan, where they are involved in the pollution of valuable sources of drinking water, against the background of the country's water crisis.

Clearly, those communities near the oil and gas fields are the most impacted, but they get the least benefit from oil drawn out of their earth and sent away to drive China's economy. These communities pay for this oil and gas with their health, deteriorating living conditions, destruction of their traditions, and environmental degradation. Many living near the richest oil reserves in Central Asia lack the basics, such as clean water or clean heating for their homes.

Those living close to the oil fields, the general public, and civil society have almost no access to decision-making on these massive projects. There is no effective mechanism through which they can voice their concerns. Chronic lack of transparency on China's investments and projects fuels sinophobia. It also highlights corporate and governmental greed in maximizing money from extracting natural resources.

It would be unfair, however, only to blame Chinese companies and investors. Governments must set the rules of the game for foreign investors to ensure that their operations serve the people's best interests. These projects should not disrupt their health and devastate their environment. Therefore, the first who should be held accountable are the host countries' executive and legislative officials who turn a blind eye to the liberties taken by Chinese oil companies. With good management and proper enforcement of national environmental laws and international treaties, more information would be publicly available, eventually leading companies to improve their environmental and social performance and to comply with existing laws.

Instead, regimes cooperate with these corporations – state and private – that operate business in Central Asia to make money. The report highlights the authoritarian nature of these regimes in these three Central Asian countries as a major factor in the denial of justice for those most directly impacted by oil and gas development. The lack of information and transparency, top-down decision-making, and the exclusion of communities from critical environmental decision-making are among the hallmarks of authoritarian rule.

Harm is not restricted to the communities and villagers closest to the energy fields. Such heavy national reliance on China harms the economies and security of all three countries.

Contrary to official rhetoric, relying so heavily on trade with China has not brought regional prosperity. Turkmenistan is mired in a debt trap that only aggravates its existing, and deepening, economic crisis. In Kazakhstan, there are justified concerns that the country is becoming an appendage to the Chinese economy by hosting dirty and unsustainable facilities. In Uzbekistan, China's influence as the country's key foreign investor is significant and negatively affects the country's domestic supply of affordable energy.

Our recommendations stress that governmental compliance with existing environmental conventions and international social standards must be improved. Corporate actors and financiers must comply with best practices, and civil society must have a role in improving the local situation and in the international arena.

Finally, these investments are out of step with international economic and environmental sustainability goals, including for China, which is moving toward greener policies at home and abroad. As nations move toward a carbon neutral future, phasing out hydrocarbons is absolutely necessary. The energy crisis and the explosive growth in the consumption of hydrocarbons and coal in the fall of 2021 has demonstrated that there is still a lot to be done to achieve this, both at the national and international levels. International financial institutions such as the World Bank, the European Bank for Reconstruction and Development, and the European Investment Bank are committed to the halt of funding hydrocarbons. In this reality, Central Asia's continued reliance on hydrocarbon extraction puts the region out of synch with much of the world. China, Kazakhstan, Uzbekistan, and Turkmenistan signed the Paris Climate Agreement. They must take their climate goals much more seriously if the world is to meet its climate challenge. These states - and the rest of the world - must recommit themselves to a carbon-neutral sustainable energy path. Therefore, sooner rather than later, a 180 degree turn from fossil fuels and a commitment to green, renewable energy must be made. This energy transition, as in the case of China, should not be carried out at the expense of less economically and politically advanced neighbors, including the countries of Central Asia.

CRUDE ACCOUNTABILITY

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