

Kyrgyzstan and the conflict over natural resources



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Authors list:

Vladlena Martsynkavych, National Ecological Centre of Ukraine

Editing and design:

David Hoffman

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Introduction

Kyrgyzstan is a mountainous country rich in water and natural resources. The country is one of 2000 priority ecological regions of the planet with unique ecosystems and biodiversity and is considered the “water tower” of Central Asia due to its Tien Shan glacier reserves. The region is however endangered by climate change, regional pollution and resources mismanagement.

The management of Kyrgyzstan’s natural resources is crucial to the future sustainability of the country. However in a region where poverty is widespread, the primacy placed on economic development seriously threatens sustainability.

Water is not only used for drinking and irrigation but also as a source of energy, constituting 93 per cent of Kyrgyzstan’s energy balance. Its upstream position from neighbouring Kazakhstan and Uzbekistan means both countries rely on the sustainable management of Kyrgyzstan’s water resources. The situation is challenging, as in winter when Kyrgyzstan needs water for energy, the land in Uzbekistan is flooded, and in the summer months when water is stored in hydropower plants upstream, the downstream agricultural land where a majority of people are employed is in desparate need of irrigation.

While a solution on joint water management is in place, no longer-term cooperation framework on the use and protection of water resources was developed. Moreover, surface runoff is expected to decline beginning in the next decade, exacerbating the situation. To date water in the region has been used primarily as a resource to be exploited, not as an environmentally-valuable system that can have a negative impact if significantly altered. More incentives should be proposed to promote a transfer to much more diverse renewable energy sources rather than relying solely on hydro.

One example in which economic activity has been prioritised over sustainable natural resource management is the Kumtor Gold mine, a project of national importance that has an impact on glaciers, water ecosystems and the nearby nature reserve. Mining has been ongoing in Kyrgyzstan for many years, though extensive mineral developments began only in the last two or three decades, negatively impacting local people and the environment. The mining sector has received significant state support while other sectors have been left in decline.

In 1998 an accident at the Kumtor mine in which cyanide spilled into a local river galvanized local resistance to mining, particularly in those areas with no history of mining. This dissatisfaction has increased with the mining company’s failure to communicate environmental protection strategies with local communities and to undertake publicly-consulted, fair benefit sharing with the local communities, which obligations it then fails to meet. The widely-recognised lack of a strong

regulatory and monitoring capacity of the state on environmental and corruption issues only worsens the situation.

The EU together with many Member States is now actively involved in the region, and its presence is expected to help with improving environmental sustainability and water management. However a certain discrepancy exists, with the EU aiming to “increase investment and trade in mining and raw materials” while at the same time “promoting... environmental protection”.

The majority EU-owned European Bank for Reconstruction and Development (EBRD) is a major shareholder in the Kumtor mine’s owner, the Canadian Centerra Gold Inc. Both in 1995 and 2010, the EBRD provided debt to the company totalling EUR 112.5 in 2010. With 60 percent of its shares owned by EU Member States, the EBRD must adhere to EU standards and policies in areas like environment and resource efficiency, and principles of the Aarhus Convention in its relations with stakeholders .

The relationship between Kyrgyzstan and the EU is guided by the Development Cooperation Agreement, which aims to approximate Kyrgyz and EU legislation. However the environmental legislation regulating mining operations has recently been weakened.¹ While Kyrgyzstan is not obliged to follow EU Directives like the Mining Waste Directive or the Water Framework Directive, Kyrgyzstan is a part to the EU water initiative for Eastern Europe, the Caucasus and Central Asia (EECCA) countries, which strives to ensure “a balance between human water needs and those of the environment, as the health of ecosystems is key to human health, to sustainable development, and to poverty reduction and vice-versa.”²

The EU should encourage in its cooperation with Kyrgyzstan more visible, expanded and effective environmental protection measures and the use of natural resource monitoring systems at the regional and national levels, drawing on international experience in the development and implementation of such programmes of cooperation with civil society. Special attention should be paid to glacier and pollution prevention and water resource management, based on the rational use and water supply within existing international commitments.

A strategic assessment of mining activities in Kyrgyzstan and other economic sectors should be carried out, and the plans, programmes and legislative acts related to the natural resources should be re-examined to ensure long-term sustainability. Economic incentives for nature conservation, resource saving, low-waste and waste-free technologies and equipment, and the rational use of natural resources need to be implemented.

The Kumtor gold project

The Kyrgyz Republic is a mountainous, land-locked country in Central Asia, with only 20 per cent of its territory offering conditions appropriate for human habitation. The population and practically all industrial and agricultural production are crowded into these areas. It is therefore necessary to pay special attention to ensuring environmental sustainability and protecting the population from industrial pollution and natural disasters.

Although it is one of the poorest countries in Central Asia, with a multi-ethnic population of 5.4 million and GDP per capita of 1055 US dollars in 2011, the country is rich in natural minerals and water resources. The social and economic development of Kyrgyzstan largely depends on the exploitation of these resources. Therefore shifting towards more sustainable development strategies is of urgent importance.³

Its water resources are especially important on the regional level as Kyrgyzstan is an upstream country from where transboundary rivers bring waters to the downstream Central Asian countries.

Glaciers represent unique fresh water reservoirs, accounting for 4.2 per cent of Kyrgyzstan's total territory. Around 6582 glaciers are registered with a total area of 8047 km². Numerous scientists have warned that the Central Asian and Kyrgyz glaciers are endangered because of global climate change. According to different estimates climate change may have already affected the glaciers, as 15 to 30 percent of the glaciers⁴ have been lost since 1943. Additional pressure on the glaciers is created by nearby industries.

While fresh water flows may increase in the near future with increased melting, it will diminish afterwards, creating tensions in the country and high water prices for the densely populated neighbouring regions. Therefore a careful balance of water use for irrigation, human consumption, electricity generation and protection of the ecosystems is essential.

At the same time, the Kyrgyz government has prioritised the mining sector in having significant development potential and created conditions favourable to mining operators through economic reforms. Currently almost all of the country's territory is licensed for mining activities, while economic sectors viewed as more sustainable in the longer-term (including renewable energy sources, agriculture and the clothing industry) lag behind.

Regulations on mining in Kyrgyzstan sometimes contradict environmental protection priorities as mining sites may be situated adjacent to glacial territories, in buffer or the main zones of Specially Protected Natural territories or river beds. The existing system of environmental monitoring does

not meet modern requirements⁵ and cannot ensure that social and environmental impacts and pollution will be minimised, monitored and restored or mitigated.

The 1998 accident at Kumtor triggered public mistrust of company and the mining sector in general. People often feel excluded from the process in which the government gives out mining licences, and local communities oppose mining developments because of the possible negative impacts on the environment. The issue of the benefit-sharing is therefore crucial, as communities would like to be involved and receive proper compensation and benefits from the development of resources'. Currently the majority of mining companies do not disclose publicly their contracts.

The Kyrgyz economy and the mining sector

The mining industry has a significant presence in the rather narrow industrial sector of the Kyrgyz economy. The government's most important policy objective is to improve the focus of the economy in order to modernise and diversify.⁶ Its primary goal is to reduce poverty in the country, which can be achieved with the help of strategic long-term planning and by developing rural regions and people's potential.

With a total population of 5.4 million people, Kyrgyzstan is one of the poorest countries in the region.

According to the most recent official statistics from 2009, 32 percent the population lives below the poverty line, with three percent in extreme poverty. The 37 percent poverty rate in rural areas is much higher than in urban areas at 22 percent. Events in the country in 2010 led to a decline in GDP of 1.4 percent, and data suggests that the number of poor increased by two percent.

The mining sector accounts for 9.2 percent of GDP, approximately 10 percent of tax revenues and employs over 15 000 people.⁷ In the past seven years, the number of working mines has decreased from 316 to 112,⁸ and the main contribution to the total output of the mining complex is currently being provided by gold and construction industry companies.

Historically Kyrgyzstan produced coal, oil, lead, mercury, antimony, uranium and copper, contributing significantly to the economy of the former Soviet Union. Currently the country is the third largest producer of mercury in the world, in part from its Khaidarkhansk mercury plant.

Active gold exploration across the country took place in the 1970s and 1980s. The Makhmalsky gold mining complex was the first to open in 1986, with foreign investments flowing into the gold mining industry in 1993 shortly after the dissolution of the Soviet Union. In 1996, together with the Canadian company "Cameco", the Kumtor gold project commenced and became the main economic player in the country.

Gold is the country's main export, accounting for around 40 percent of total exports and 50 percent of industrial production in 2010.⁹ Kyrgyzaltyn (a gold mining and refining company), Kyrgyzneftegaz (an oil and gas production company) and KyrgyzGaz (the gas distribution company) remain state-owned.

In recent years, there have been tensions between mining companies and local people who are worried about the threat to their environment and the untransparent revenue sharing related to the companies Talas Copper Gold¹⁰ and Kumtor Gold.¹¹ NGOs and human rights defenders believe this public discontent is caused by poor access to information about the company's operations, a lack of transparency in issuing licenses, and often the absence or improper conduct of formal procedures for public participation in decision-making.

Several pieces of legislation aim to introduce changes in the current regulatory framework in order to reduce the control of state authorities and catalyse private investments and initiatives in mining, for

example the Strategy for the Development of the Kyrgyz Republic 2009-2011 and the Development of the Mining Sector (along with the Law on Natural Resources, Mining Codex and others) i

The Strategy sets out the following industrial projects:

- exploration of underground gold reserves at the Kumtor deposit in order to reach 19 tonnes of extraction annually;
- the continuation of gold extraction at the Makmal, Solton-Sary, Terek, Terekkan deposits;
- the commissioning for extraction in 2010 and 2011 of the Jerooy, Taldybulak, Ishtamberdy, Andash, Bozymchak, and Kuru-Tegerek gold deposits. Their development will increase gold production by 5-6 tonnes annually, and further on – with projected output design capacity – to 10 to 12 tonnes annually;
- the development of the Trudovoe and Kensu tin-tungsten deposits;
- the completion of construction of cement plants in the cities of Kyzy-Kiya, Aravan and Naukat of the Osh region; and
- an increase of coal production to 1-1.5 million tonnes, oil to 100 million tonnes, and gas to 50 million cubic metres.

Moreover, the Strategy will utilise the experience of China in developing small mining deposits.

Currently almost of all of Kyrgyzstan's territory could be potentially licensed for mining activities.¹² The influx of new mining technologies and the launch of new projects have given rise to both opportunities and difficulties for the government and local communities.

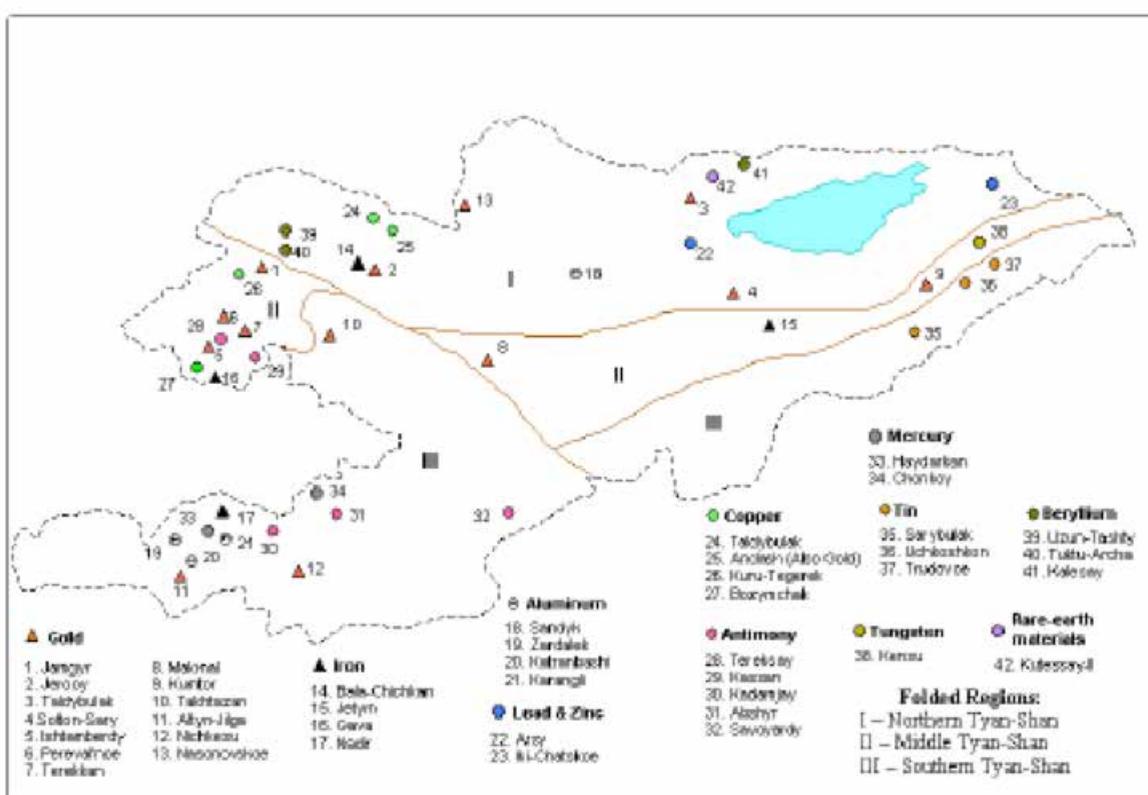


Figure 1 Mineral deposits in Kyrgyzstan (source: State Geological Agency, adopted from <http://bit.ly/NQtZVL>)

Institutional aspects and public participation

The existing system of environmental monitoring does not meet modern requirements and hardly

reaches internationally-agreed indicators.¹³ The UNDP's Second Progress Report on the Millennium Development Goals states that the capacities of the staff and the laboratories are too low, and access to industrial enterprises is too difficult to obtain. There is no well-functioning system for monitoring biodiversity, and the creation of a national monitoring system for water and land resources is needed.

The experience of NGOs and international observers¹⁴ shows that Kyrgyz regulators are not allowed to make unannounced audits of the mine sites, nor do they have adequate resources in terms of financial and analytical capabilities to reliably oversee the water quality monitoring performed at the site. In addition, it is clear the regulators usually lack the necessary political support to perform truly independent, competent oversight, as is the case at Kumtor.

The State Agency of Geology and Mineral Resources (former Ministry of Natural Resources) is a key policy implementation and permitting agency for the mining industry, having the right to issue licenses for mineral resource development.

While the second Progress Report on the Millennium Development Goals for Kyrgyzstan recommended elevating the status of the State Agency of Environmental Protection and Forestry (SAEPF) to the level of a Ministry¹⁵ to ensure sustainability in the country, the current reforms of the Kyrgyz government include proposals to separate environmental control from the SAEPF. This proposal is worrying because removing some functions of environmental monitoring and assessment from SAEPF may lead to a disintegration of the country's environmental policy and strategy, further weakening its environmental controls and increasing future threats to the environment. Due to opposition from NGOs and scientists, only some functions of the SAEPF have been reduced and in early 2013, the function of environmental impact assessments has been given back to the Environmental Agency.

The 1997 Kyrgyz law on "Guarantees and Access to Information" is among the most progressive within the Newly Independent States (NIS). Compared to other Central Asian countries, Kyrgyzstan has more possibilities for cooperation with state authorities, public steering councils have been formed at every Ministry and state agency and councils can provide recommendatory decisions. However, the practice does not follow the theory, with problems in accessing information and participating in decision-making remaining, and access to justice is still rare. Public protests in towns and villages close to mining sites are good indicators of existing problems.

The report on the implementation of the Aarhus Convention in Kyrgyzstan¹⁶ identified problems with access to environmental information, which is usually not provided in a timely manner, and is incomplete or not of the necessary standard.

Political situation

A former member of the Soviet Union, Kyrgyzstan elected its first president Askar Akaev in the 1990s. Akaev was forcibly removed in 2005 after nearly 15 years in power because of questionable election results. In April 2010 anti-government demonstrations took place against the authoritarian rule of Kurmanbek Bakiev, the successor of the first president who aimed to centralise presidential power. The protests peaked as public perception viewed that decisions about economic and social issues, like the significant increases in electricity tariffs, were being made in favour of a corrupt elite, while inflation and deteriorating social services and infrastructure caused growing dissatisfaction. As the result, the president was removed and an interim government formed, led by a coalition of opposition politicians and civic leaders.

However the same activities also led to ethnic violence in some regions of the country.¹⁷ Fortunately the interim government saved the fragile peace and conducted constitutional reforms that made the Kyrgyz Republic a parliamentary democracy. These were followed by parliamentary elections in 2010 and presidential elections in 2011.

Despite efforts by the state agencies and NGOs, corruption is still high in the country, especially in the natural resource sector. A recent report from Global Witness¹⁸ shows how the family of former president Bakiev has been involved in money laundering with state development funds through offshore jurisdictions. Kyrgyzstan is ranked 164 out of 178 countries according to Transparency

International's 2011 Corruption Perception Index.

Existing EU and IFI operations in Kyrgyzstan

Central Asia is increasingly important in recent years for the EU, a fact reflected in the new EU-Central Asia Strategy.¹⁹ The strategy aims at enhancing the EU's relations with the region as a whole and with each of its countries, prioritising cooperation in six main areas:

- democracy and human rights;
- education;
- trade and investment;
- energy and transport;
- environmental sustainability and water; and
- intercultural communication.

From the EU perspective, education, environment protection and the rule of law are priorities for this cooperation. In general the countries of Central Asia are less committed to sharing "European values," and the EU has less leverage on other countries in terms of financial support, but Kyrgyzstan and Tajikistan are exceptions.

The major reason though for the EU's interest in the region is as a source of significant energy imports. The EU and its member states face a conflict between promoting democratic and human rights on the one hand and pursuing energy interests on the other²⁰ - a conflict which seriously impacts relations between the EU and Central Asian countries. According to one piece of research "The prospects for democratisation in Central Asia are dim and security risks caused by instability – including Arab Spring scenarios – are on the rise. It seems that for Europe engagement with Central Asian societies is a better choice than sanctions and isolation. However, it remains a balancing act between interests and values. Giving up on promoting values will not deliver lasting benefits for the EU. It will not suddenly help Europe achieve its strategic energy and security objectives, or make it as effective as China or Russia at meeting hard interests. Also, it should be society as a whole that is central to EU policies, not the authoritarian regimes that lack succession mechanisms and are therefore relatively short-term bets".²¹

So far EU progress in engaging and promoting democracy, good governance, rule of law and human rights has been modest at best.

As a result of increased EU interests in Central Asia, during the EU budget period of 2007 to 2013, financial support through its Development Cooperation Instrument almost doubled to EUR 750 million.²² In addition, a number of Member States also engaged and started providing significant assistance to the region. The EU-Central Asia Regional Strategy Paper 2007-2013²³ takes a regional approach to EU development assistance in Central Asia, supported by a multi-annual indicative programme that allocated EUR 314 million over the first four years (2007-2010).

The Regional Strategy Paper for Assistance to Central Asia established the framework for cooperation between the European Commission and the five Central Asian States. This document complements the strategy paper and identifies six sectors for cooperation: energy, transport, SMEs, environment, border management, education and science.

The first 2008 Progress Report²⁴ on the Strategy's implementation recognised progress and established priorities for the future, with the challenge to maintain visibility, increase financial resources and actively involve countries of the region. Poverty alleviation and the achievement of the Millennium Development Goals pose a serious challenge to sustainable economic development, which is the key area for EU assistance, including social sector reform and rural development. Other issues mentioned in the report were climate change and the environment, where regional cooperation is essential in addressing these.

Central Asia faces major ecological challenges and is affected by climate change. Water availability is a key strategic issue, fostering environmental protection and better management of water resources in the region has been one of the objectives. Tensions between upstream countries Kyrgyzstan and

Tajikistan that rely increasingly on hydropower for energy during winter and downstream countries Turkmenistan, Uzbekistan and Kazakhstan who fear a resulting lack of water during the summer periods for irrigation presents a major challenge for EU development cooperation. Water-related issues remain high on the agenda and could lead to escalated confrontation among regional states.²⁵

Therefore the EU needs to intensify efforts to explore the best ways of promoting sustainable regional cooperation with all interested parties and organisations and seek solutions that satisfy the needs of both upstream and downstream countries. Attention should be paid to how public opinion is accounted for in countries that are well-known for their lack of public participation.

The EU has established an EU-Central Asia Environmental Dialogue to foster environmental protection and better manage water resources. Italy, in close cooperation with the European Commission, leads the coordination of these activities. To specifically target the environment and water, the European Commission designed two Regional Environmental Programmes for the period 2008 - 2013.²⁶

In November 2009 the Cooperation Platform on Environment and Water was approved as part of the EU Strategy for Central Asia, and activities carried out through National Policy Dialogues on Integrated Water Resource Management (IWRM) under the EU Water Initiative aim at exchanging experiences and joint undertakings between EU and Central Asia countries, in order to develop efficient and integrated management of water resources.

At the World Summit for Sustainable development in 2002, the EU Water Initiative was established between the EU and Eastern Europe, Caucasus and Central Asia countries to protect the environment and improve livelihoods.²⁷ The most important component of the initiative focuses on integrated water resource management, including transboundary river basin management and regional sea issues.

The Kyrgyz EU Water Initiative National Policy Dialogue process was agreed in 2008, however it stalled due to the political events in 2010. After the reopening of negotiations in 2011, the Issyk-Kul Lake basin was selected 'as a pilot project on economic and financial aspects of basin water resources management' funded by Switzerland, the EU and OECD within the frame of EU Water Initiative.

The National Policy Dialogues will develop 'policy packages' to ensure reforms towards sustainable water management and the financing of water supplies and sanitation infrastructure, including environmental conservation, strengthening regulatory services and institutional frameworks. Through the initiative, support will be given to projects that encourage an integrated approach to water resource management for both surface and groundwater and to promote trans-boundary dialogue on water management. Through these actions the EU strives to support consensus-building among the five Central Asia countries.²⁸

Currently the second phase of the 2010-2013 Second Central Asia Regional Environmental Programme (EURECA 2009) is under implementation. The EURECA 2009 programme will focus on regional cooperation and partnership development with Europe and will reach its objectives through the following four components:

- the development of the Environment and Water Cooperation Platform to facilitate closer regional cooperation both with Central Asia and between Central Asia and the EU;
- the sustainable use and management of natural resources in Central Asia, by tackling issues such as climate change, forest governance and environmental data collection, exchange, monitoring and assessment; Integrated Water Resources Management (IWRM), and particularly trans-boundary river basin management through the development of networks and the sharing of best practices between Central Asian and European water management and basin organisations; and
- environmental awareness-raising in the region by enhancing regional cooperation and partnership with Europe.

The bilateral agreement the EU and Kyrgyzstan is by the 1995 Partnership and Cooperation

Agreement²⁹ (PCA) that was ratified in 1999. It forms the basis of political, trade and economic, legal and cultural relations. The PCA is particularly valuable in that EU Member States recognise Kyrgyzstan as a country with which they share “common values”, and both sides are committed to “strengthen political and economic freedoms”. The trade relations between the EU and Kyrgyzstan are governed by the Trade and Cooperation Agreements (TCA).

In the area of trade the PCAs are non-preferential agreements and the parties grant each other most-favoured nation (MFN) treatment with respect to tariffs, and quantitative restrictions are prohibited in bilateral trade. The PCAs envisage progressive regulatory approximation of the partner countries' legislation and practices according to the most important EU trade-related standards. This should lead to better practical access to the EU markets for goods originating in those countries.

The PCA with Kyrgyzstan (1999) states that the parties to it will “aim at increasing investment and trade in mining and raw materials” (Art. 50) while cooperation “shall aim at promoting... environmental protection”.

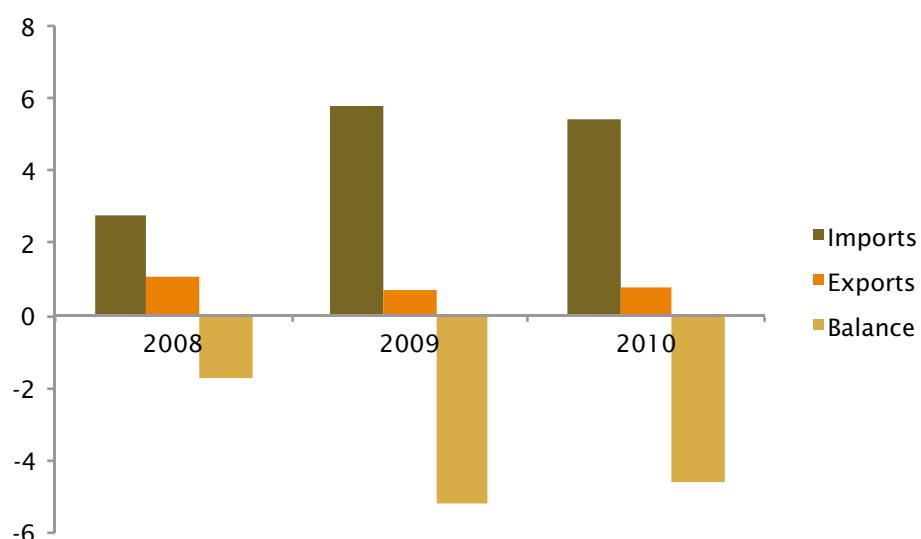
Trade and WTO membership

In the area of trade and investment the EU Central Asia Strategy focuses on the accession of the entire Central Asian region to the World Trade Organisation (WTO). It also aims to help Central Asian countries take greater advantage of the EU's Generalised System of Preferences. WTO membership of all the Central Asian countries is a pre-condition for closer trading and investment relations with the EU. Kyrgyzstan acceded to the WTO in 1998.

In recent years EU trade with Central Asia has grown and the EU is now the main trading partner of the region, accounting for almost a third of its overall external trade (29.1 percent in 2007). Nevertheless, the total turnover of the EU's trade with Central Asia remains low and the five countries are insignificant trading partners with the EU. Kyrgyz exports to the EU reached 12 percent in 2008 and declined to 2 percent in 2010³⁰ and the EU's imports from Kyrgyzstan account for less than 0.1 percent of the EU's overall trade with the world. By comparison, the EU's largest trade partner in Central Asia Kazakhstan accounts for almost 85 percent of the EU's overall trade with the region, and Kazakhstan sent 36 percent of its exports to the EU countries in 2010. Still this figure represents only 1.1 percent of the EU's overall trade with the rest of the world.³¹

Kyrgyzstan imports more than it exports, which creates a high deficit in the trading balance, a situation that is hardly expected to improve in the next few years without significant efforts. More than half of its exports are mining products.³²

Fig. 2 Kyrgyz Republic with the rest of the world, trade in goods, Source: IMF (Direction of Trade



Statistics - DoTS)

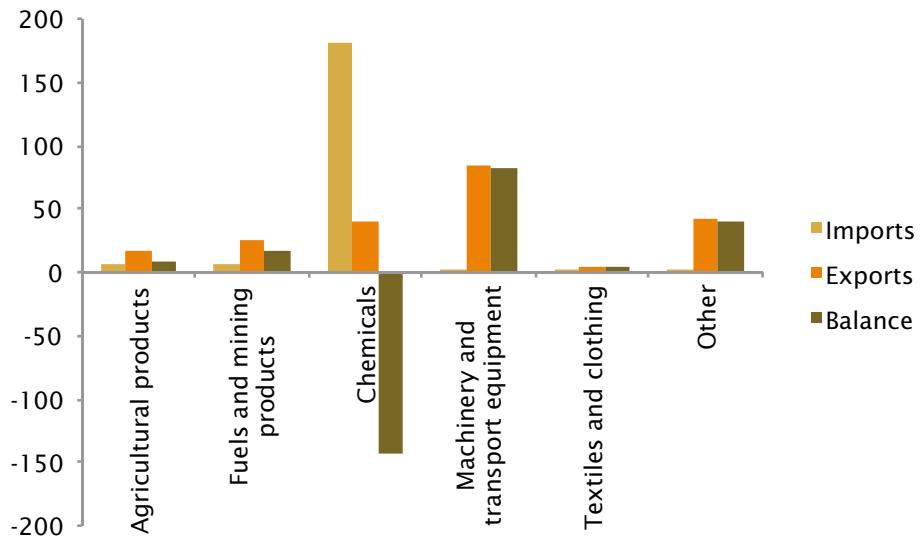
Source: http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113409.pdf

Kyrgyzstan's foreign trade structure in exports was in 2010 dominated by non-CIS countries (55.3 per cent of total exports), and its imports by the CIS countries (53.1 per cent of total imports) in 2010. Kyrgyzstan carried out exports to 78 countries in 2010.

Kyrgyzstan exports: gold, antimony, mercury, lanthanides, cement, marble and cotton, wool, meats, tobacco, natural gas and hydroelectric energy. Its main export partners are Russia, Switzerland, Kazakhstan and Afghanistan. The bulk of exports go to Switzerland (22.1 per cent of total exports), the United Arab Emirates (17.2 percent), Russia (14.7 percent), Kazakhstan (10.3 percent) and the US (5.1). Of the total exports to Europe, 39.9 percent went to Switzerland (with gold exports accounting for 99.6 percent) and 3.9 percent to France (with inorganic chemicals accounting for 96.7 percent).

Kyrgyzstan imports machinery & equipment, chemical and food products from China, Russia and Kazakhstan.³³

Fig. 3 EU27 Merchandise trade with Kyrgyz Republic by product, EUR billion (2010) - SITC* (UN, WTO/ITS) & AMA/NAMA (WTO) breakdowns.



Source: http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113409.pdf

Foreign Investment

Foreign direct investment (FDI) outside of the extractive sector is also very low in comparison with other ex-Soviet Republics, totalling just USD 3 to USD 9 per capita in the Kyrgyz Republic (as well in Tajikistan and Uzbekistan). Given the level of state indebtedness, much of the required increase in investments in Tajikistan and the Kyrgyz Republic has to come from external sources and the private sector.³⁴ Political instability and corruption are the major obstacles to attracting FDI. The manufacturing and financial sectors are the most attractive to foreign investments. The main investor countries are: Germany, Great Britain, Russia and Canada.

Currently, Kyrgyzstan's ratio of external debt to GDP is 52.9 percent,³⁵ the highest in the region. In 2007 the possibility of Kyrgyzstan joining the World Bank and International Monetary Fund's Heavily Indebted Poor Countries (HIPC) Initiative caused heated debates among state institutions and civil society groups, and was rejected.

International financial institutions

Mining and IFIs

Kyrgyzstan has prioritised mining in its development, and recent developments show the softening of its legislation for doing business. Other IFIs present in the country support this trend - the World Bank is 'assisting' the country to reduce barriers for the mining –, however it seems to do so at the expense of social and environmental protection.⁴¹

While approving its revolving corporate loan facility, the EBRD announced the cooperation with Centerra as support for "sustainable gold-mining industries" in the region.⁴² However, in October 2012, the EBRD adopted its Mining Operations Policy in which it admits that no single mine can be sustainable since it exploits a finite local resource.⁴³ The EBRD is now re-defining this approach as "responsible mining". Comments submitted by civil society groups to the policy were mostly neglected,⁴⁴ including lessons from the Kumtor gold mine about the impacts on the Kyrgyz water systems, and this suggests business as usual by the EBRD in the mining sector.

To support the realisation of larger-scale projects of interest to the EU and Central Asia, the increased scope of IFI financing is ever more important. In this context, the European Commission adopted the proposal for a European Council decision to expand the mandate of the EIB to cover Central Asia. The EIB signed a framework agreement with Tajikistan in February 2009 and with Kazakhstan in April 2010. A first loan of EUR 7m with Tajikistan was signed in June 2011 to rehabilitate the low and medium-voltage distribution networks in the Sugd region.⁴⁵ No activity has been reported in Kyrgyzstan by the EIB to date.

The IFIs investing in the country co-ordinate their work under the Development Partners Co-ordination Council, allowing them to enhance their synergies and cooperate in policy dialogue, technical assistance and co-financing. The July 2010 Joint Economic Assessment (JEA) led by three development partners – the Asian Development Bank (ADB), IMF and World Bank – with the participation of five other partners – the EBRD, EDB, the European Commission, IFC and the UN – set out a strategic framework for reconciliation, recovery and reconstruction after the violence of 2010.³⁶ ADB assistance is provided on a 50 percent grant, 50 percent loan basis. The transport sector accounts for the largest share of ADB assistance.

The EBRD has operated in the country since the 1990s. The EBRD's activities are guided by its Country Strategy for Kyrgyzstan.³⁷ The natural resources sector has prevailed in the bank's lending in recent years, reaching 31 percent in the last five years cumulatively³⁸ through three projects, and increasing to 46 percent with one additional project³⁹ in May 2011. This increase may be related to the three-year revolving credit facility with Centerra Gold Inc. in support of the company's ongoing operations and potential acquisitions of mining assets,⁴⁰ and the EUR 78 million Centerra Natural Resource mentioned in the Strategy, however, is undrawn.

The EBRD has supported Centerra Gold operations in Kyrgyzstan since the mine opened in 1995. Currently the bank sees one major achievement of the project - the improvement in reporting of taxes paid by the mining industry under the Extractive Industries Transparency Initiative (EITI). In March 2011, the Kyrgyz Republic became "EITI Compliant," with the EBRD supporting this process through active policy dialogue with authorities and Centerra.

During the next three-year period described in the 2011 Country Strategy, the EBRD plans to look for opportunities to support the EITI Kyrgyzstan Secretariat and the government in the implementation of a comprehensive framework for the award and regulation of the extractive industries, and transparent revenue management and allocation of the proceeds of the extractive industries in the interests of the overall development of Kyrgyzstan, based on EITI principles.

Regional environmental specifics

Glaciers are increasingly a political topic in recent years, with heads of state and multilateral donors highlighting the melting of glaciers as a consequence and indicator of climate change. While climate change and preserving biodiversity⁴⁶ is being recognised by decision-makers worldwide, the Kyrgyz government is not paying proper attention to the development of strategies for adapting to climate change. Ensuring sustainable development in an era of climate change has not become

a real priority in sectoral and regional strategies.

During the Soviet era, the high mountains of Central Asia were home to 12 major glacier monitoring sites, two of which – in Kazakhstan and Kyrgyzstan – were of global importance. Most of these stations stopped operations in the post-Soviet period, and only the major glacier observation site in Kazakhstan at the Tuyksu glacier remains active, albeit in an outdated and underfunded state. Central Asia's glaciers, some of which are the largest in Eurasia, are regional fresh water sources and a popular tourist attraction.

All Central Asian countries with glaciers (Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan) are in the process of compiling glacier inventories through a combination of field research and satellite imagery. The growing autonomy of countries within Central Asia has led to a diverse array of glacier monitoring and assessment methodologies and a subsequent lack of regional coordination and compatibility. In an attempt to overcome this, a glacier monitoring centre in Kazakhstan, in collaboration with UNESCO, was established in 2011.⁴⁷

International monitoring is welcomed assistance, as currently the glaciers in Kyrgyzstan are not accounted for as a valuable natural resources and not a single state agency has oversight over them, so it is impossible to make a real picture of the problem.⁴⁸

Water management

The 2005 Water Code of Kyrgyzstan established principles for an integrated approach to water resource management and includes basin management plans for the development, use and protection of water resources. Kyrgyzstan was expecting to complete the establishment of authorities and basin councils for river basin management required by the Water Code in 2011. However, the Kyrgyz government has not yet developed a national water strategy even though the country has commitments under international agreements.

The mean snow water-equivalent in the northern and western Tien Shan mountains has remained relatively stable in the past few decades, but several studies conclude that the glacial systems of the Central Asian mountains are decreasing in size and volume. In Kyrgyzstan, a slight increase in run-off due to an increase in the proportion of glacial run-off is predicted by 2025 to 2030. In the subsequent years, run-off is expected to decrease.

Water resources in Central Asia are predominantly of a transboundary nature. Most of the region's surface water resources are generated in the mountains of the upstream countries Kyrgyzstan, Tajikistan and Afghanistan, eventually feeding Central Asia's two major rivers, the Syr Darya and the Amu Darya, which flow through the downstream countries Kazakhstan, Turkmenistan and Uzbekistan, which are part of the Aral Sea basin.⁴⁹

An estimated 22 million people depend directly or indirectly on irrigated agriculture in Tajikistan, Turkmenistan and Uzbekistan. Water is also important for energy production: hydropower covers more than 90 percent of total electricity needs in Kyrgyzstan and Tajikistan and is also an export commodity.

The major challenge in Central Asia is to agree on how to use the available water resources, accounting for the interests of all countries and the water-dependent ecosystems. The main issue is the conflict between water use for hydropower generation and for irrigation.

The subregion's critical dependence on water resources is illustrated by the 2008-2009 crisis. A very dry year was followed by an extremely cold winter and energy needs in Tajikistan and Kyrgyzstan could not be met due to low water levels in reservoirs, leading to an energy and food crisis that caused terrible distress among the populations and the economies in the subregion.

The agricultural sector is the biggest consumer of water in the subregion, notably in the Aral Sea Basin. The population in most of the countries is heavily dependent on agriculture, with up to 80 percent in Afghanistan. This underlines the importance that water has for agriculture. There is also a pressing need to improve water use efficiency, and specific water use is high because of losses,

evaporation and overwatering in downstream countries like Uzbekistan.⁵⁰

Thus, a careful balance between water use for irrigation, human consumption, the generation of electricity and the protection of ecosystems is needed for the sustainability and availability of water and to avoid water conflicts in the future.

Industrial pollution

Kyrgyzstan is unique in the region in that mining predominates in the country. Through international cooperation Kyrgyzstan aims to list regularly the hazardous activities in the country, work that was started by the UNECE and government workshops in 2011.⁵¹ Soviet-era standards and approaches to industrial safety are still in use in combination with modern methods.

The quality of water resources is endangered because of previous contamination and economic activities. Tailings, mining dams and radioactive waste represent serious risks to the environment and the health of the population – mainly because these contaminate surface water.⁵² A number of ecological problems were inherited from the past and are legacies from industrial and radioactive pollution.⁵³ Gradual degradation releases hazardous substances into the environment, and accidental failures of tailings or flooding can have severe impacts. Discharges of industrial wastewater are seen as a pressure factor on the Kyrgyz rivers Naryn and Kara Darya, which are sub-basins of the Syr Darya.⁵⁴ An anthropogenic factor that adds to the glacier melting and water pollution is dust settlement on the glaciers due to mining.⁵⁵

The region is highly vulnerable to extreme hydrological events such as floods. In the mountainous part of Kyrgyzstan, sudden flooding is occasionally caused by the overflow of glacier lakes. A potential polluter of the Naryn River identified by Kyrgyz NGO Toxic Action Network and later confirmed by the Interagency in December 2011 and the State Commission in December 2012⁵⁶ is the Kumtor mine tailing facility. It is feared that the Petrov Lake will burst out of its banks. The tailings are located at an altitude of 4100 metres and currently contain approximately 53 million cubic metres of tailings – already the biggest tailing pond in Kyrgyzstan, which is designed to store up to 88 million cubic metres.⁵⁷

Sectoral and economic interests dominate over environmental concerns, and the threat of pollution of environment is acute.

One of the reasons for this is the widespread poverty in the region and the perceived need for rapid development to address this. However, priority should be given to sustainable development, not to the kinds of economic development that pose serious threats to people and the environment.⁵⁸

Land use and natural protected areas

There has been no major progress with agricultural reform in recent years. Agriculture constitutes a large part of the country's economy with a share of 22 percent of GDP and over 32 percent in employment in 2009,⁵⁹ although these shares are steadily decreasing. Agricultural output mainly consists of crops and livestock, which accounted for about 56 and 42 percent, respectively. Most agricultural activity takes place in the south. The country has historically specialised in animal, and is believed to have a comparative advantage in this sector. This makes pastures an important economic asset for rural livelihoods. Some pastures are being intensively used and ill-managed, leading to negative consequences such as economic losses and ecological imbalances. The government seems more concerned with crops production, emphasising the importance of improving food security in view of the latest world food price increases.

The country has a network of Specially Protected Natural Territories to preserve the biodiversity that in 2009 reached 6.3 percent of the total area in the country. However the number of endangered species is increasing,⁶⁰ thus providing evidence of a conflict between industrial and agricultural development and conservation goals. Ways to find a balance between these goals have yet to be discovered.

The Kumtor gold project

The Kumtor open pit gold mine is the largest gold deposit project managed by a Western company in Central Asia. In 1989 Soviet geologists deemed mining at Kumtor commercially unviable. However in 1992 the Canadian Cameco Corporation signed an agreement with the Kyrgyz government to take a stake in the mine, as well as management control. Commercial production began in 1997, and in 2004, Cameco and the Kyrgyz government agreed to transfer Kumtor to a new, jointly-owned Canadian-based company Centerra Gold Inc. The mine was privatised through Centerra's initial public offering. Following Cameco's disposal of its entire 48.5 percent stake in Centerra at the end of 2009, the Kyrgyz state mining company Kyrgyzaltyn became the single largest shareholder with approximately 33 percent of shares, although the majority 66 percent remain in free float.⁶¹

The mine produced 18.1 tonnes of gold in 2011, and since 1996, the Kumtor mill has produced approximately 7.8 million ounces of gold from 76 million tonnes of ore with an average gold grade of 4.0 grams per tonne (g/t).

Table 1 shows that as of December 31, 2010, the estimated proven and probable mineral reserves at Kumtor from the existing ore stockpiles and pits were 62.4 million tonnes, containing 6.3 million ounces of gold at an average gold grade of 3.1 g/t.⁶²

Table 1 Kumtor project mineral reserves and resources (as of December 31, 2010 – tonnes and ounces in thousands)

	Tonnes	Grade Au (g/t)	Contained gold (oz)	Mining method
Open pit	62 367	3.2	6 283	Proven and probable open pit
Stockwork underground	1 616	12.1	628	Inferred underground
SB underground	2 772	15.3	1367	Inferred underground

Source: Technical Report on Kumtor Gold Project, 2011, Centerra Gold Inc., 2011

In addition to the open pit inferred mineral resources, the high grade underground zone (stockwork zone) accounted for an estimated additional inferred mineral resource of 1.6 million tonnes, containing 628 000 ounces of gold at an average gold grade of 12.1 g/t. Another underground zone (SB Zone) is estimated as an additional inferred mineral resource of 2.8 million tonnes, containing 1.4 million ounces of gold at an average grade of 15.3 grams of gold per tonne.

An increase in the gold price assumptions, the expansion of the open pit mineral reserves and successful underground drilling and exploration has led to a significant increase in the estimates of mineral reserves and resources at Kumtor. Based on the reserves evaluation, the new open-pit life-of-mine plan has been updated and extended to 2021.

The mine generates about 10 per cent of Kyrgyzstan's GDP and employs about 3000 Kyrgyz citizens. But such large scale exploration also brings serious environmental and social threats that will be described in the following parts of the study.

Information on the environment and project impacts

The ore body and the mineralised zones are partially covered by the Lysyy and Davidov glaciers. Since the company's activities commenced in 1997, the nearby glaciers have been mined to access the rock. However the most severe impact has happened by storing waste rock on these glaciers, aggravating their melting. The rock placed on the glaciers heats up to about 30 degrees C in the summer and heats up even in winter when air temperatures reach -40 C.

Though the glaciers are receding as a result of changing climate conditions generally, this glacial shrinking has been accelerated by the mining works, permafrost melting and waste rock dumps that were unforeseen in the initial project design. The company plans to remove and manage the waste dump and glacial ice in the coming years by 2014. Yet improvements began only in 2007 after significant creeping of the waste dump and the Davidov glacial ice affecting mine operations, including delaying mining in some parts of pit.

According to the company's own assessment, these movements continue – in some sections at a rate of 36 metres per month – and will continue despite the unloading of waste dump material and dewatering efforts.⁶³ Moreover the mine pit walls are losing their stability, resulting in several accidents to date.

In July 2002 a Kyrgyz worker was buried in the collapse of a 200-metre high pit wall at the mine near the Lysyi glacier. A failure of the same severity also occurred in 2006. Additionally recent news from Kyrgyzstan⁶⁴ describing Centerra Gold's revised production forecast for 2012 notes the substantial acceleration of ice and waste movement and the need for unloading this ice and waste into the pit.

A company technical report admits that, "Hydrological conditions in the open pits are controlled by the presence of originally up to 250 metres of permafrost that has become more discontinuous in the areas exposed by mining and the seepage of seasonal surface waters and ground waters into the open pit and their walls." The inflow of seasonal melt waters can be as much as 1 000 litres per second. The Davidov glacier is the predominant source of melt water entering the central pit in the summer months.⁶⁵

This means that both the Centerra and EBRD impact assessments regarding the waste rock placed on glaciers were incorrect from the start, since the magnitude of the melting was not predicted accurately. As a result operations are suffering and waste must be removed from the glaciers.

Any future plans from the company should be much more thoroughly analysed, assessed and consulted before expanded or new production starts.

Natural reserve

The New Terms Agreement signed in 2009⁶⁶ gives the Kumtor Gold Company exclusive rights to all minerals within an area of approximately 26 000 hectares until 4 December 2042. However the Interagency and State Commissions⁶⁷ found this decision unfounded. The New Terms Agreement said, "No part of the Sarychat-Ertash National Park is or will be... included in the Expanded Concession Area." However the boundaries of the national reserve have been changed⁶⁸ to further explore the Kumtor mine: 4380 hectares of the park's territory including the Petrov glacier and the Koendy district, buffer and core reserve zones respectively, were set aside. This decision was

made illegally,⁶⁹ since a separate environmental impact assessment and public consultations were required but not carried out.

The integrity of the important Sarychat-Ertash natural reserve, home to snow leopard and other red listed animals, is under acute threat from the Kumtor mine's expansion, an issue of concern for international and Kyrgyz NGOs.⁷⁰

The Petrov glacier is the largest glacier in the water basin of the river Naryn and is an important regional water source, while the Koendy district is the migration corridor for argali to the internal part of the reserve. Exploration works are having negative impacts on natural species, and these need to be assessed in compliance with EIA legislation.

The State Commission recommended that the new concession territories planned for the new open pits be withdrawn, and in July 2012, the Kyrgyz government waved the allocation of the additional lands for the project. In February 2013 the Kyrgyz Parliament voted for the revision of the unfavorable agreement with Kumtor, due in part to the environmental implications.

Centerra Gold states it is "promoting wildlife and being a good steward".⁷¹ However in March 2012 the Snow Leopard Network with the support of the Kyrgyz WWF office sent an open letter to state authorities requesting protection for nature park territories because they are home to unique biological species.⁷² While Kumtor approved a Biodiversity Management Strategy and Plan for the region where it operates,⁷³ it cannot on the one hand destroy the integrity of the Sarychat-Ertash reserve in the illegally-changed territory and at the same time finance biodiversity conservation measures.

Water contamination, tailing facilities and Petrov Lake

The reports prepared by Kumtor avoid mention of the chemical components of the ore. The Kumtor technical report misrepresents the potential for water contamination by stating that the mine waste does not have the potential to generate acid. According to an analysis of wastewater samples from the State Agency for Environmental Protection, high levels of sulphate and suspended solids in the effluent drainage were identified in the runoff from the mine pit, waste dumps and in the effluent from the glacial moraine.⁷⁴ The existing sump and pond drainage systems of the central pit do not fully cope with the task of cleaning suspended particles from such volumes of water, and the Ministry of Natural Resources has therefore asked the Kumtor Company to make improvements.⁷⁵

Petrov lake has grown by more than 92 000 square metres annually in recent years from melting at the Petrov Glacier. The lake's natural dam has become less and less stable and although there is no imminent danger, the lake's tremendous growth might eventually cause the dam to give. The mine tailings are located 85 metres below Petrov lake⁷⁶ and in a worst-case scenario, the downstream tailings could easily wash away, with unforeseeable impacts on people and the environment. Although there is no evidence for an imminent outburst, the dramatic increase in the lake's size may entail dangers.⁷⁷

Local people are already reporting that pollution in the Kumtor river is significantly decreasing the amount of fish in recent years. It is worrying that there has already been a change in the status of the Kumtor river waters from 'fishery water' to 'cultural and household use'.⁷⁸

The Interagency and State Commissions⁷⁹ recommended a number of actions that need addressed by state agencies and the company related to improving water quality, the Petrov Lake, and the transfer of natural reserve lands.⁸⁰ The company must urgently start addressing the possible dangers of a rupture to Petrov Lake and the washing away of tailings.

Closure plan and reclamation funds

The conceptual closure plan for the Kumtor mining estimates a cost at USD 29 million, including USD 20 million for tailings closure. As of November 2012, the reclamation fund contained USD 11.3 million, which would not be enough as only the construction of the plant for water and tailings purification costs more than USD 30 million. The situation is alarming in that the current agreement

assigns reclamation responsibility to the government, when in fact it should be that of the company.

The plan should also provide full financial guarantees to ensure that the plan is implemented at the cost of the company, rather than deferring the reclamation planning until “two years before operations cease” as is now promised by Centerra. The technical project on reclamation should be prepared according to Kyrgyz legislation⁸¹ and then sum should be defined for reclamation.

It is recommended and desirable to have the mine reclamation plan publicly reviewed at least every five years to ensure that the plan and reclamation funds are adequate and sufficiently protect the Kyrgyz people. At the moment, there has been no public discussion around the reclamation plan.

Centerra’s Corporate Responsibility Report states: “Before we open a mine, we plan for every stage of its life cycle.”⁸² Scrutiny of the Kumtor mine gives grounds to doubt that this approach is being implemented. The most obvious example is the impact on the nearby glaciers and the storage of waste rock on them and the fact that the glacier is melting at such magnitudes .

Although the company says its “operating approach has improved... and includes working together with local authorities to protect glaciers and reduce the impact of activities”, improvements began only in 2007 after significant creeping of the waste dump and the Davidov glacial ice was affecting mine operations, including delaying mining in some parts of the pit and endangering workers’ lives.

Development impacts and local public perceptions

For the first time in history of Kyrgyzstan, the agreements between the government and the company received a professional independent scrutiny. The State Commission sourced international legal services to assist.

The analysis shows that although the Kumtor project is the main asset of Centerra Gold, comprising 92 percent of the company's income in 2011, Kyrgyzstan does not benefit from the mine in full as the agreement is unfavorable. It also recommends the investigation of those responsible for possible corruption and legislation violations.

The most favorable agreement for the state was the one signed in 1992 between the state company Kyrgyzaltyn and the Cameco Corporatio. However this was revised in 2003 and 2009, leading to a decrease in the Kyrgyz government's shareholding from 66,7 percent with direct control in 1992 to the current level of 32,75 percent and a minor shareholder status with no decision-making opportunities. The company is also exempt from most fiscal obligations to the government and people of Kyrgyzstan.

The annual amount the project companies will pay to the government totals four percent of gross proceeds in the previous calendar year. However, this royalty payment is to be decreased and offset on a one-to-one ratio by the companies' capital and exploration expenditures - their exploration, acquisition, or development of mineral reserves and resources. This is very generous towards the company as development expenditures, when allowed, are typically taken from income taxes, not royalties.

Even though the Kumtor Gold Company has exclusive rights for the new Concession Area, its companies are exempted from paying any present or future taxes or any present or future rents to any local or national governmental authority related to the use or occupation of land in the Expanded Concession Area. There is neither a provision for it to increase nor any provision for a local authority to tax the land.

Further, the payments to the federal government prohibit the company from owing payments, taxes, or fees to the state, local, or other government entities. This could penalise local governments and people without affording them the opportunity to participate in giving away this right.

An environmental pollution charge is fixed at the level of USD 310 000 annually. A fixed-fee for environmental pollution is very uncommon. That the charge is fixed indicates that it will not increase based on inflation, pollution amounts or frequency, actual costs to the government or

people from the pollution and so on. This is neither logical nor a good precedent.

The State Commission recommended reviewing the current Agreement⁸³ to increase the environmental fees, define recultivation costs, review the tax regime and address many other inadequacies.

Issyk-Kul Development Fund

Centerra, KGC and KOC supported the existing Program of Social and Economic Development of the villages of the Tamga, Barskoon and Jargylchak administrations. Such support is funded from the Issyk-Kul Development Fund (IDF) and contributions equal 1 percent of the company's gross proceeds. The IDF was established to finance infrastructure projects in the Issyk-Kul region, and in 2010 the company allocated USD 7 million to the fund.

The question of whether the choice of projects is fair and the distribution of the funds is transparent was raised by a representative from the local Barskoon CSO Karek, "We received the list of the projects supported by the Fund, however, after visiting several of them we found that the listed projects in reality were implemented on a very low level, or were totally non-existent".

In a letter to the Kyrgyz human rights defence group "Citizens Against Corruption", the General Prosecutor acknowledged: "For the period 2009-2012 as a result of illegal actions of public administration officials in the Issyk-Kul region, the Supervisory Board of the Development Fund [where Kumtor company representatives participate - auth.] and the management of the capital construction agency, 101,796,017 Kyrgyz soms [EUR 1 740 000] of the Fund have been used illegally in various activities and acquisitions."⁸⁴ As a result of the investigation, criminal cases were initiated.

The company claims to invest in hospitals, schools, roads, transmission lines and other projects. However it seems that local villagers do not see the results, since the main problems of the villagers is related to the supply of drinking water. Currently drinking water comes from the Barskoon River. People need to be informed not only about the company's projects but also to be able to propose projects for implementation. The State Commission found that between 1997-2010, USD 23 million was spent ineffectively and did not develop businesses in a way that might have had a multiplier effect and added value for the local community.

Chumagul Seidekirimova, veterinarian, Barskoon: "Actually our living conditions are not as bad compared to other villages in the region, but we do have problems with bad roads and water. We get our drinking water from the river, the water is very dirty. This is very difficult for us."

Karat Isakunov, farmer, Barskoon: "The company has bribed them all. They give the village administrators money in order to sign permits they need. If the village administration was honest it wouldn't do that. Barskoon actually could be a prospering village. But look around. Life hasn't changed much since the Kumtor gold mine opened. Everything is like it used to be. In the past I was riding a donkey, now I am riding a horse, that's the kind of development we see here in Barskoon."

3.3 Workers' rights and labor conditions

In February 2012 a ten day strike at Kumtor ended only after the company reached a settlement with the employees' trade union. Production was suspended after unionised employees launched a strike over salary deductions for payments to the Kyrgyz social fund.

Previously in October 2010, unionised employees began a ten day work stoppage during which time production was suspended. The workers demanded decent payments — a two-fold rise in salaries so that they would be comparable with the foreign workers at the mine, with justifications based on the difficulty of work in the high altitude conditions and the increase of gold prices on world market.⁸⁵ The new collective agreement lasted until December 31, 2012 and was subsequently ratified by the union. It included a 50 percent salary increase for the mine workers.

Early in 2006 Kumtor workers also demanded and received an increase in the altitude coefficient to their salaries and more funding for health care and rehabilitation. Janibek Tulkunov, a former employee of Kumtor said: "I got fired because they said I was late for two days from vacation

although I had about 20 vacation days left at my disposal. I sued the company, but the court followed the company's line, unfortunately.... Well, the mine brings jobs, that's the good thing about Kumtor, but they have polluted the environment. When we started to work here in 1995 there were so many fish that we used to catch them with buckets. I wrote a letter to Roza Otumbaeva on the environmental and social risks that the mine may have for the workers and water sources, but the company tends not to see this, they got used to saying all emergency events are because of humans."

Resistance by local communities

A reluctance on the part of governments and mining companies to share gold-mining profits equitably and a lack of transparency in decision making has led to feelings of discontent among poor and vulnerable groups in the mountains. Indeed, the benefit-sharing arrangement between mining projects, the government and local communities remains a lingering cause of resentment. The conflict between the use of land for traditional pasture and grazing, nature conservation and for mining activities is also a source of friction in Kyrgyzstan.

A company's "social licence" to operate, understanding local people's demands, needs and expectations is important. Local resistance and dissatisfaction may grow as mining operators fail to communicate their environmental protection strategies with local communities, and then fail to meet the obligations they do make. It is important to note here that such communications strategies must be backed up by solid performance — it cannot be expected that local people will be placated with nice words if they do not experience the benefits promised.

The central government's failure to understand local demands and its slow response to adjust mining regulations complicates the situation. Meanwhile, decisions on the direction of the development of the region should be a community driven process, but this is not the case so far.

Cyanide spill

In 1998 an accident resulted when a truck carrying approximately two tonnes of sodium cyanide fell into a local river. The toxic material dispersed quickly causing environmental and health damage and a significant and long-lasting negative public perception towards the company.⁸⁶ The accident galvanized local resistance to mining, whether or not cyanide was used in operations, especially in areas with no mining history

While the company plays down⁸⁷ the 1998 cyanide spill, more than 1000 people have turned to the Barskoon local public association "Karek" in need of assistance to protect their rights and to claim compensations for the damages caused by the spill. In 2005 villagers blocked the local road demanding compensation. A law suit has been ongoing since then. 24 Barskoon villagers with documented proof of poisoning are demanding compensation for moral and health impacts from the mining company.

In May 2012 local people rioted in the village near the potential site of Talas Copper Gold in Kyrgyzstan and later research showed that people are very much worried about the environmental problems the company may cause.⁸⁸

NGO Earthworks "*The company did not notify the residents of Barskoon, who use the water for drinking and irrigation, until five hours after the accident. As a result, over 2,500 people were poisoned, 850 people were hospitalised and at least four of those patients died.*"⁸⁹

Mairamgul Sadambekova, entrepreneur, Barskoon said, "*Of course they are guilty. They promised us a lot when the toxic spill happened. But first we didn't get compensation. They didn't help us. If they had really helped us we would have clean drinking water by now and better roads.*"

Totugush Ismailova, Barskoon villager, said "*In 1998 during the accident I was poisoned with cyanide. Since that accident I have become sick – with many health troubles being only 52-year old now - high blood pressure, kidneys, liver problems - I looked for remedies in almost all regional hospitals. Two years after the accident my husband died, and all seven of my kids are sick. Instead of paying*

compensation the company and the government completely ignore villagers' problems. There is no work for the youth - one of my sons got married and has a child, but Kumtor is not accepting him for work.

CSOs, international and Kyrgyz groups have for more than two years asked the government to conduct an independent expert visits to the site and to evaluate the current state of the environment, including water systems, tailing facilities, glaciers and so on. The idea only materialised in Autumn 2011 when the Interagency Commission was formed and travelled to the mine on in September 2011. International hydrogeologist Robert Moran was refused permission to visit the mine, but his review, field samples from the local area and his report became the only source of independent information and evaluation since the start of the mine's operations, triggering wide international discussion.

Following the visit in February 2012, the Parliamentary Commission was formed and in July 2012 the State Commission proposed a further in-depth investigation of the situation with Kumtor and the inclusion of international experts. In early 2013 the Commission also proposed to the government and parliament a review of the agreement with the company and improve its operations. International donors involvement

The mine has been financed by a complex architecture of loans and guarantees from private and public financial institutions, along with Cameco's own fund of USD 167 million. Among Kumtor's largest international public investors are the EBRD, IFC and the Multilateral Investment Guarantee Association (MIGA), each having loaned USD 40 million.

Even though the IFC has declared that "occupational health and safety issues included provision of adequate training, proper hazardous substance handling and storage, workplace air quality, and provision and use of personal protection equipment", several accidents have occurred in the mine. In addition to the 1998 cyanide spill, in July 1998 70 litres of nitric acid spilled, and in January 2000, a mine truck dumped 1.65 tonnes of ammonium nitrate. In July 2002, a Kyrgyz worker was buried in the collapse of a 200 metre high pit wall at the mine and an accident of the same magnitude happened in 2006.

The accidents prompted calls for an independent, third party environmental and safety audit at the mine. The mine management company has repeatedly rejected access to the site to the NGOs that intended to carry out an independent mine audit.⁹⁰

To divert attention from the enduring controversies connected with Kumtor gold mine, the EBRD and IFC have been engaged in projects to protect snow leopards in the vicinity of the mine. However once the natural reserve started gaining results in terms of biodiversity conservation, the protected territories were included in the Expanded Concession Zone of Kumtor.

In November 2010 the EBRD supported Centerra Gold Inc. With a USD 150 million three-year revolving credit facility for the company's ongoing operations and potential acquisitions of mining assets in Mongolia and Kyrgyzstan. NGOs appealed to the bank to disclose information about the project prior to its approval, but not even the usual Project Summary Document was disclosed, due to policy derogations on commercial confidentiality. In December 2012, the company drew USD 76 million outstanding debt under its USD 150 million revolving credit facility with the EBRD. A recent Centerra communication⁹¹ said that "aggressive exploration"⁹² at the Kumtor mine and "significant capital investment" will continue, so it is likely that the EBRD loan will be requested for these activities.

A number of environmental and social issues related to the mine's activities have repeatedly been raised. From the issues described above, it is evident that both the Centerra and EBRD impact assessments of the waste rock placed on glaciers was incorrect from the start, since the magnitude of the melting was not predicted accurately. As a result both the environment and mine operations are suffering, and waste must be removed from the glaciers. In 2009 at its annual meeting, as a result of concerns raised by civil society, the EBRD pledged to carry out a monitoring mission to Kumtor. However, the eventual investigation in November 2009 was limited to the review of the company's reports and visual observations of the Kumtor facilities without full and thorough independent investigation and analyses. Already then problems were evident with waste rock

Compliance with international law and regulations

stored on the glaciers, and it was recommended to stop loading these on to the Davidov glacier. Possible water contamination issues and tailings dam instability were not recognised. Only some prescriptions to improve the site's waste management were given.

The EU-Kyrgyz Partnership Cooperation Agreement foresees the approximation of Kyrgyz Republic's existing and future legislation to that of the EU.⁹³ Kyrgyzstan is also part of the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (also known as the Aarhus Convention).

The Kyrgyz Aarhus Convention Implementation report⁹⁴ highlighted problems with access to environmental information, which is not provided in a timely manner usually and is incomplete or not to the necessary standard. The same is observed with the Kumtor project: in recent years CSOs have requested the Emergency Action Plan, Mine Reclamation Plan, as well as geochemical reports and baseline data for the mine, but they were not provided, even though the company issues an Annual Environmental Report.

Since 1997 the EBRD has been unable to influence its client at Kumtor to increase transparency in terms of concrete requests from the public on specific environmental information. Information about the Revolving Debt Facility project was only published after the project was approved, citing commercial confidentiality.⁹⁵ The problem however lies even deeper, because in its Public Information Policy⁹⁶ the "EBRD recognises the importance of the principles, purpose and ultimate goals of the UNECE Aarhus Convention", but does not fully follow its provisions. The involvement of the bank, although one of the instruments of the EU, does not increase access to information.

The EBRD's involvement in the Kumtor project similarly has not ensured the application of one of the basic principles of EU environmental law - the precautionary principle, according to which pollution and degradation of the environment shall be prevented, rather than handled subsequently. According to Article 174 of the EU Treaty, EU policy on the environment shall contribute to the pursuit of the following objectives: preserving, protecting and improving the quality of the environment, protecting human health, prudent and rational utilization of natural resources, and promoting measures at international level to deal with regional or worldwide environmental problems.

According to Article 21 of the Lisbon Treaty,⁹⁷ "The Union shall define and pursue common policies and actions, and shall work for a high degree of cooperation in all fields of international relations", in order to ensure among others "consolidate and support democracy, the rule of law, human rights and the principles of international law;" "foster the sustainable economic, social and environmental development of developing countries, with the primary aim of eradicating poverty;" "help develop

international measures to preserve and improve the quality of the environment and the sustainable management of global natural resources, in order to ensure sustainable development;" and "assist populations, countries and regions confronting natural or man-made disasters;⁹⁸" None of these goals is being achieved through the EBRD's cooperation with Kumtor's Centerra. It also fails to promote "the Union's objectives with particular regard to the Union's external action as laid down in Article 21 of the Treaty on European Union, the Europe 2020 Strategy, and the significant increase of the transfer of renewable energy and energy-efficient technologies,"⁹⁹ as requested by a decision of the European Parliament.

As the Kumtor project has a history of cyanide accidents, it is also worth noting a resolution of the European Parliament on a general ban on the use of cyanide mining technologies in the EU (the Czech Republic and Hungary already ban the use of cyanide). The European Commission rejected the idea of preparing a proposal without a proper evaluation of existing alternative mining technologies, which was scheduled for 2012.

However, while inadequate, the EU does have legislation related to mining, for example on extractive wastes (Directive 2006/21/EC). An independent assessment of mining practices undertaken at the Kumtor mine, states that "Mine operations are contaminating local ground and surface waters by releasing elevated concentrations of numerous contaminants (uranium, arsenic, aluminum, iron, copper, molybdenum, manganese, nickel, zinc, chloride, sulfate, nitrate, ammonia, cyanides) into the environment. Some of these constituents also exceed international water quality standards and aquatic life criteria. Additional organic contaminants are also likely being released into the environment from the use of explosives, process chemicals, fuels, greases, antifreeze, etc".¹⁰⁰ Kumtor is clearly noncompliant with the principles of the Directive on mining extractive waste.¹⁰¹

In addition, mining at Kumtor is not compliant with the EU's Water Framework Directive, as pollutants at the site can have a catastrophic and irreversible impact on human health, the environment, and biodiversity. Under the Water Framework Directive, Member States are obliged to achieve and preserve the 'good status' of water resources and to prevent the pollution of water resources with hazardous substances.

Kyrgyzstan is also a party to the 1991 Convention on Environmental Impact Assessment in a Transboundary Context (also known as the Espoo Convention). While it is not yet a member of the Convention on Transboundary Effects of Industrial Accidents, the assistance programme for ECEAA and SEE countries "Regional Dialogue and Cooperation on Water Resources Management" is supposed to help Kyrgyzstan improve the knowledge of government experts to identify hazardous activities under the Convention and the Seveso II Directive (96/82/EC), and to enhance awareness with respect to potential risks of hazardous activities.¹⁰²

The Kumtor case contravenes the International Covenant on Economic, Social and Cultural Rights¹⁰³ and violates local people's rights to water, adequate standards of living and the right to health. The 2002 General Comment No. 15 interprets the Convention on Economic, Social and Cultural Rights to confirm a right to water in international law: 'The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses'. Although it is not legally binding and cannot create new laws or state obligations, the Committee is a body with the authority to interpret the provisions, clarify content and confirm disputable issues. This Comment provides guidelines for the interpretation of the right to water, framing it within two articles – Article 11 on the right to an adequate standard of living and Article 12 on the right to health.¹⁰⁴

Other Initiatives

The EBRD has used "sustainability funds" as a tool in resource-rich countries to ensure long-term development planning. However these funds have not proven to be properly used, reported and transparent.¹⁰⁵ Thus in addition to promoting a resource efficiency agenda and questioning the overall rationale of commodity-led development, alternative revenue/benefit sharing possibilities should be identified. Their implementation must be in line with local communities' plans and strategies for development, giving them rights in decision-making and improving transparency.

Extractive Industry Transparency Initiative

In March 2011 Kyrgyzstan was granted EITI compliant status after joining the initiative in 2004. In the mining industry, the government intends to strengthen its reach within the EITI certification process, paying particular attention to the disclosure and reconciliation of revenues from mineral resources, through the participation of civil society. Transparent and effective management of tender processes in the mining industry (especially in regard to a number of potentially rich deposits of gold) has been identified as a key priority in order to attract new investment into the country. Social aspects of governance in the mining industry and interaction with local communities in resource-rich regions have been important topics for authorities in recent years.

The EITI is presented by IFIs as an effective tool for achieving transparency of financial flows from the mining industry to state budgets and for public accountability of the income received. An attractive feature of the EITI is the equal participation of all stakeholders: state authorities, companies and civil society. In 2004 when it started in Kyrgyzstan only two companies (Kumtor Operating Company and Kyrgyzaltyn) joined the EITI and by 2009 the number of mining companies in Kyrgyzstan was 27.

However CSO representatives have criticised the narrow scope of the Initiative, which covers only financial indicators. In Kyrgyzstan it is important to have transparency in the mining industry from the early stages of licensing and environmental and social impact assessments, as well as the early disclosure of contracts and agreements.

A further drawback of the EITI is its aggregated reporting i.e. a representation of the data for the whole industry. Therefore current NGO members promote the idea of disaggregated EITI reports for individual companies, as well as expanding the scope of the EITI to include environmental and social performance information disclosure (EITI plus).

The EBRD has also indicated in its country strategy for Kyrgyzstan that it will look for opportunities to support the EITI Kyrgyzstan Secretariat and the government in the implementation of a comprehensive framework for award and regulation of extractive industries, and transparent revenue management and allocation of the proceeds of the extractive industries in the interests of the overall development of Kyrgyzstan, based on EITI principles.

Conclusions and recommendations

1. Climate change as well as human-induced mining activities and legacies endanger regional water ecosystems, especially because of the impacts on glaciers. Central Asian glaciers should be put under national and international protection agendas with proper monitoring and plans for a decrease in external pressure;
2. Local population's informed consent for new mining projects and a reaffirmed "social licence" to operate with understanding local people's demands, needs and expectations is important;
3. The second report on the Millennium Development Goals for Kyrgyzstan acknowledges the threat to implementing the Goal 7 on Environment because climate change adaptation issues are not properly addressed in the country;
4. The environmental legislation in the country can be seen as being weakened and the second report on the Millennium Development Goals acknowledges the threat to Goal 7 on Environment because the State Agency of Environmental Protection and Forestry is not influential and does not have sufficient status to function in line with international best practices, especially in relations to inspections, issuing licences and thus it needs strengthening;
5. The EU has a contradictory approach to Kyrgyzstan. The Partnership and Cooperation Agreement with Kyrgyzstan (1999) stated the parties to it will "aim at increasing investment and trade in mining and raw materials" (Art. 50) while cooperation "shall aim at promoting... environmental protection", and at the same the EU Water Initiative aims to develop efficient and integrated management of water resources;
6. Kyrgyzstan is particularly oriented towards mining which might not be the best choice in terms of long-term environmental and social sustainability for the country;
7. The EBRD, with the majority of its shareholders in the EU, has been involved in the Kumtor project since 1995 and failed to influence the client properly. As a result glaciers are damaged and regional water sources are threatened. In addition, the involvement of the European public bank in the project has not resulted in increased access to information, strengthened monitoring or the availability of environmental information.

Recommendations

1. Both direct and indirect funding in Kyrgyzstan by the EU should ensure the implementation of EU commitments under the Lisbon Treaty Article 21 and support social, economic and environmental development and the eradication of poverty;
2. As water is one of the key issues to ensure the stability of the region, EU programmes like the EU Water Platform, strategies for the Central Asia region and related EU funding should address climate change and glacier protection; projects and programmes funded through EU funding

should ensure access to information, public participation and access to justice on environmental matters, as is required by UN Aarhus Convention; The EU should support Kyrgyz legislation to be better harmonised with EU environmental legislation, including horizontal legislation, the Mining Waste and Water Framework Directive and strength the administrative structures and procedures to ensure proper monitoring of the extractives industry;

3. The EU should help Kyrgyzstan to re-orient its development towards long-term environmental and social sustainability for the country, help diversify the economy and promote environmental protection through the operations of the EBRD.
4. The Kyrgyz government should apply the “no-go zone” principle regarding mining on river beds, in buffer or main zones of nature protection areas and on glaciers. The EU's international cooperation with Kyrgyzstan should encourage more visible, expanded and effective environmental protection measures and the use of both national and regional natural resource monitoring systems, drawing on international experience in the development and implementation of the programmes and cooperation with civil society. Special attention should be paid to glacier protection, pollution prevention and water resource management based on the rational use and water supply within existing international commitments.
5. A strategic assessment of mining activities in the country and other economic branches should be carried out, and the plans, programmes and legislative acts related to the natural resources should be re-examined to ensure long-term sustainability. Economic incentives for nature conservation, resource saving, low-waste and waste-free technologies and equipment, and rational use of the natural resources need to be implemented.

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If Kumtor from the very beginning worked transparently and openly, Kyrgyzstan would have been a different country.

- *Temir Sariev
Minister of Economics
and head of the State
Commission*



CEE Bankwatch Network
Na Rozcesti 1434/6
Praha 9, 190 00
Czech Republic
E-mail: main@bankwatch.org
Twitter: [@ceebankwatch](https://twitter.com/ceebankwatch)
www.bankwatch.org