

## KYRGYZSTAN

*By Interfax-CNA*

**K**yrgyzstan's GDP grew by 6.7% in 2003 and industrial production increased by 17%. Production increased by 1.1% in the mining sector and by 19.2% in the processing industry. The production and distribution of electricity, gas, and water increased by 10.3%. Output increased by 1.8% in transport and 8.8% in telecommunications, and trade grew by 13.5%. Agricultural output increased by 3.8%. Fixed capital investment dropped by 8.6% but direct foreign investment increased by 27% to US\$146 million.

Kyrgyzstan's foreign trade deficit widened by 33.2% to US\$134.8 million in 2003, with exports rising by 20% to US\$582 million and imports increasing by 22.2% to US\$716 million. Exports were the equivalent of 30% of GDP, with gold from the Kumtor mine contributing 13%. Precious metals exports, overall, accounted for 45% of total export revenues in 2003 compared with 34% in 2002, a year in which gold production at Kumtor was seriously disrupted.

Although radical changes in the economy have contributed to improvements in Kyrgyzstan's industrial production, growth in GDP was largely a result of higher gold output, with other industries, such as light industry and the processing of agricultural products, continuing to lag.

The government has decided to transfer the supervision of mining companies to the state geology and mineral resource agency, Gosgeologoagenstvo, as part of a major restructuring. In this context, all departments dealing with mining within the Economic Development, Trade and Industry Ministry now fall within the jurisdiction of Gosgeologoagenstvo. The agency is responsible for forecasts, estimates, attracting investment, confirming reserves, monitoring company activity and the raw material base for these companies, and ensuring that work in this sector is carried out satisfactorily. Gosgeologoagenstvo aims to bring regulations governing the mining industry in line with international standards.

Spending on geological exploration in Kyrgyzstan soared by 34% in 2003, to So233 million (US\$5.3 million). Foreign investments in exploration totalled So185 million (US\$4.2 million), including So118 million (US\$2.7 million) on gold and So64.4 million (US\$1.5 million) on oil and gas. Companies involved came from China, Canada, Russia, the US, Australia and Kazakhstan. stepped up geological work.

The state budget allocated So34.743 million (US\$ 0.79 million) for geological exploration, mainly for oil and gas exploration in the Chu and Issyk-Kol depressions, where potentially viable deposits were revealed, and for coal exploration in the Alay depression in the Karakavak-Karautok area, which

could hold upwards of 2 Mt of coal. In addition, some 5.1 Mt of reserves of phosphate rock were outlined in the Batken region, and a preliminary estimate of a structure with high-grade gypsum was studied in the Minkush block on the Moldo-Too ridge, where there are probable reserves of some 2.7 Mt.

## **Gold**

Kyrgyzstan's gold production increased by 25% to 22.48 t in 2003. State-owned Kyrgyzaltyn produced 1.53 t and Kumtor Gold Co (KGC), now wholly-owned by Centerra Gold Inc), produced 20.944 t. Kumtor is located in eastern Kyrgyzstan in the Tien Shan Mountains at an altitude of 4,200 m. It is one of the largest gold deposits in the world and has proven and probable reserves of some 25 Mt averaging 3.43 g/t Au, and measured and indicated resources of about 12.2 Mt at 4.24 g/t Au. Kyrgyzaltyn and Cameco Corp of Canada had respective ownership shares of 66% and 33% in KGC but earlier this year, Cameco spun off its gold assets into a new jointly-owned company Centerra Gold Inc. Kumtor's gold production rose by 28% in 2003 as a result of higher grade mill feed (4.5 g/t Au) and the resumption of normal operations following the pit-wall failure in 2002. In the first six months of 2004, Kumtor produced 10.8 t

More than 40 commercial or near-commercial gold deposits have been discovered in Kyrgyzstan and this figure could easily double with further exploration and deposit evaluation. Prospecting and appraisal has been carried out at 28 deposits, most of which require further exploration and hundreds of mineralised targets are known. As of January 1, 2003, there were 19 gold and combined deposits on the government's books containing total reserves of 388.5 t, and licences had been granted for the development of 15 deposits.

Exploration during 2003 identified 10 t of probable reserves at the Surgut deposit in the western part of the Turkestan-Alai ridge region, confirmed 8.2 t of reserves in ore zones in the Duvatash field with reserves of 8.2 t and investigations continued over large areas in the Talass, Kyrgyz, Atbashinsk, Chatkal, and East Alai regions and at Moldo-Too. Several mineralised structures were identified that warrant further study. At Chatkal in the Chanach River basin, a gold resource of at least 22 t was estimated.

Kyrgyzaltyn initiated underground operations at its Makmal mine during 2003 and produced 1.15 t from three shafts. Two more shafts are being sunk and it is hoped to extend mine life at least until 2008. If probable reserves can be converted to the proven category, production could continue for a further 10 to 15 years.

Kyrgyzaltyn also began trial mining at its Solton-Sary mine, obtaining 154 kg of gold. The deposit should produce about 1 t/y of gold when it goes commercially on stream. Kyrgyzaltyn is spending about So23 million (US\$520,000) of its own money on exploration at the site in 2004 and So5.1 million (US\$115,000) in 2005. Solton-Sary's reserves are estimated to be about 20 t.

Preparations have begun for the development of the Jerooy gold deposit in partnership with Oxus Gold plc of the UK. The mine and all infrastructure should be completed by the middle of 2005 and commercial production should start in the second half. Oxus estimates that Jerooy contains 3.45 Moz or 107.3 t of gold. There is around 4.04 Mt averaging 4.9 g/t Au amenable to open-pit mining and 5.84 Mt at 9.3 g/t Au which could be mined by deep-mining. A feasibility study was completed in August 2003 and Jerooy is expected to yield 180,000 oz/y at a cash operating cost of US\$133/oz.

Australia's Central Asia Gold Ltd is in partnership with Kyrgyzaltyn to develop the Taldy-Bulak Levoberezhny gold deposit. Central Asia Gold entered into a preliminary agreement with Kyrgyzaltyn, the licence-holder, in November 2003, to acquire an effective 51% interest in the Taldy-Bulak Gold Mining JV. An overall investment of US\$54 million is needed to bring an underground mine into operation. All construction is to be completed in 2005, and commercial mining is scheduled to begin during the fourth quarter of that year. At full capacity, the mine should produce about 2 t/y of gold. Taldy-Bulak Levoberezhny is situated in the Kemin district of the Chu region in north Kyrgyzstan. Reserves and resources amount to some 18.7 Mt at 6.9 g/t Au.

### **Mercury**

Kyrgyzstan has about 400 mercury deposits, two of them comprising large fields (Chonkoi and Khaidarkan with more than 20,000 t) and one medium field (Zardobuka with 1,500 t). The remaining deposits are relatively small. Khaidarkan Mercury Combine (KMC), the only mercury producer in Central Asia, is based in the Batken region of southern Kyrgyzstan. Production of mercury ore at Khaidarkan, the main source of ore for the combine, is moving toward deep deposits. However, proven reserves available for commercial development will support production at current levels for another six or seven years. KMC exports all of its product to China, the Netherlands, and Russia.

In 2003, KMC reduced production by 23% to 370 t, primarily because of an accident in June 2003 of that year, which flooded all auxiliary shafts and mining horizons. Following the accident, which was caused by an electricity shutdown, the company began mining upper horizons that were mined previously and which have much lower-grade ore.

Kyrgyzstan tried repeatedly to sell a 99.98% stake in KMC during 2003, but there were no bidders.

### **Antimony**

Antimony reserves are found in nine main deposits, two of them are large (Kadamdzhai and Khaidarkan), with more than 100,000 t; seven are average size (Tereksai, Kassan, Abshir, Savoyardy, Chaarat, Sharkratma, and Murlau) with more than 30,000 t). The Kadamdzhai Antimony Combine (KAC) is the only enterprise in the CIS that produces metallic antimony, and has the capacity to produce 25,000 t/y of metal. In 2003, KAC produced 41 t of antimony in concentrate.

The Government of Kyrgyzstan issued a resolution on June 7, 2003, that cuts the mineral resources renewal tax for antimony from 5% to 2%, having already cut the tax to 2% for tin, tungsten, mercury, oil and coal. The decision is intended to provide support to all companies that develop antimony deposits.

### **Tungsten and tin**

There are two large tungsten fields in Kyrgyzstan: Trudovoye and Kensu, with more than 30,000 t of tungsten trioxide; several medium fields: Koltaboz, Zavodsky and Kichikalai (with 10,000 - 30,000 t); and numerous small deposits, including Kumbel, Meliksu, and Kashkasu. Tungsten reserves total 386,000 t of tungsten trioxide, including 125,200 t that are ready for production (at Trudovoye and Kensu), 1,565 t that have been explored and evaluated (Meliksu, Kashkasu, and Sargardon), 10,900 t estimated (Kindyk, Meliksu, and Kashkasu), and resources of 248,7000 t.

Kyrgyzstan has two large tin fields with more than 50,000 t (Trudovoye and Uchkoshkon), two medium fields with 10,000 - 50,000 t (Sarybulak and Terekty), and a large number of small deposits. Reserves are estimated at 318,800 t, with 214,700 t ready for production (Trudovoye and Uchkoshkon), 9,500 t of proven reserves (Sarybulak), and additional resources of 94,600 t. Trudovoye is Kyrgyzstan's largest deposit in terms of tungsten and tin reserves. The Tsentralny field (licensed to Tyanshanolovo) holds 44,000 t and 89,000 t, respectively. Lesisty (licensed to Kyrgyzaltyn) possesses 27,000 t of tin and 14,000 t of tungsten, and Tashkoro, which has not been licensed, holds 32,000 t of tin and 37,000 t of tungsten.

Tianshanolovo (former the Sary-Dzhaz mining and milling complex), shut down operations in 2003. Russia's Novosibirsk Tin Combine (NOK) owns a 50% stake in the company. The operation is being mothballed because there is no money to continue developing the complex. Previously, NOK financed an investment programme at the complex amounting to some US\$1 million. The programme included construction of a 50,000 t/y capacity beneficiation plant, the purchase of equipment for mining and construction work, transport, and construction of service infrastructure.

### **Other minerals**

Most bismuth reserves in Kyrgyzstan are in the Mironovskoye district, which also holds copper, gold, silver, arsenic, and lead deposits. C1+C2 bismuth resources at the start of 2001 totalled 482,000 t of ore containing 1,162 t of bismuth (with average ore content of 0.25% Bi, and 2.27 g/t Au).

Beryllium is found at Kalesai (11,700 t averaging 0.13% Be), Chetendy (6,100 t), Tyuktyu-Archa (6,700 t) and Uzun-Tashty (60,300 t averaging 0.12% Bi). Total proven and probable ore reserves amount to some 104,000 t.

Several mines formerly produced uranium in Kyrgyzstan (Kadzhisai, Mailisai, Kavak, and Tyuyamuyun), but they have all been closed. Uranium production is possible with the development of proven reserves in the Sarydzhaz River basin and in the Kyzyl-Ompulsky placer fields. Sarydzhaz holds 8,222 t

averaging 0.02%  $U_3O_8$ , and Kyzyl-Ompulsky holds 3,125 t averaging 0.03%  $U_3O_8$ .

Kuru-Tegerek is Kyrgyzstan's largest known copper deposit, with 1.02 Mt averaging 0.6% Cu. Other deposits include Oital, Tuyuk-Alaarcha, Taldy-Bulak, and Andash.

### **Coal, oil, natural gas**

There are three coal regions: Alai, Alabuka-Chatyrkul and Yuzhno-Issykkul. Proven coal reserves total 2,500 Mt and probable reserves total 4,700 Mt. The largest deposits are in the Kara-Keche lignite field, which has been exploited since 1985. Of the 500 Mt of total proven reserves, 192 Mt are amenable to extraction by open pit. Local enterprises are producing coal at the margins of the field and Razrez Ak-Ulak is the only state enterprise among them. It is managed by Komur, the country's the biggest coal producer (formerly Kyrgyzkomur, which went bankrupt).

In 2003, Kyrgyzstan produced 411,300 t of coal, 3.9% less than in 2002, a result of under-funding in the sector. State-owned Komur saw its output drop by 11%, to 337,300 t. More than half of Komur's fixed assets are beyond repair. The financial plight of two coal producers, Korgon-Tash and Almalykkomur, was severe enough to reduce them to bankruptcy.

Oil and gas is produced in the Fergana Valley. Kyrgyzstan has 14 hydrocarbon fields, including seven oil fields (Maili-Sai, Chigirchik, Changyrtash, Karagachi, Tamchi, Bishkent-Togap, and Tashravat), four oil and gas fields (Mailisu III, Mailisu IV in East Izbaskent, Izbaskent, Niyazbek-North Karachikum), two gas fields (Suzak and Yuzhny Rishtan) and one oil and gas condensate field (North Rishtan). Recoverable reserves are estimated at 12 Mt of oil and 4.3 billion  $m^3$  of gas. Some 57% of known oil reserves have been depleted and 50% of gas reserves. The prospects for increasing hydrocarbon reserves in Kyrgyzstan lie in the further study of deposits in the Fergana Valley and at Alai, Naryn and Aksai.

Oil production in 2003 fell by 9.3% to 68,500 t, and natural gas production was down by 10% to 27.1 million  $m^3$ . All oil was produced by Kyrgyzneftegaz. The company's gas production fell by 10.2% to 26.2 million  $m^3$ . Batkenneftegaz produced 900,000  $m^3$ , down 28.5% from 2002.

Kyrgyzneftegaz plans to increase oil and gas production by expanding output in the Saryshtam, Sarytok, Sary Kamysh, Mailisu IV, and East Izbaskent fields as a result of joint geological exploration, drilling, capital overhauls, and well restoration, aided by investors from Canada, Australia, and China. Kyrgyzneftegaz and China's An-Ban (a subsidiary of Gun I), will begin joint exploration of the Alai depression in southern Kyrgyzstan. Gun I is involved in two oil production projects with the company. One involves the overhaul of 40 idle wells at Izbaskent and the second involves drilling horizontal wells at Mailisu IV. Action of Australia has signed a contract to increase oil production by maintaining pressure through water injection at the Beshkent-Tagap field in Batken region.