

## UZBEKISTAN

*By Interfax-CNA*

Uzbekistan raised its GDP by 4.2% year-on-year in 2002. Industrial production increased 8.5% and agricultural output rose 6.1%. The foreign trade surplus rose by almost 120% to US\$276.4 million, against US\$128 million in 2001.

Uzbekistan has rich mineral resources. By 2000 the country had identified more than 2,700 fields and possible deposits, including about 100 types of minerals. Exploration has been undertaken in more more than 900 mineral fields that hold proven reserves worth an estimated US\$970 billion. The overall mineral and raw material potential is estimated to be worth more than US\$3,300 billion.

Uzbekistan is among the top ten countries in terms of copper and uranium reserves. The country has large oil and gas deposits and is seeking to develop the sector by establishing refining facilities for natural gas and gas condensate. Uzbekistan has the second-largest coal reserves in Central Asia, as well as large reserves of gold, silver and other precious metals and rare earths, as well as lead, zinc and tungsten. It has the fifth-largest gold reserves in the world and is the seventh-largest gold producer. At present, there are 40 known precious metals fields in the country.

In the industrial minerals sector, Uzbekistan has plentiful supplies of marble, granite and gabbroic rocks, and many of the decorative stones, ranging from white to black, are unique. The country also has phosphate rock deposits, and some of the world's largest potassium and rock salt deposits.

Uzbekistan expects to receive some US\$860 million in foreign investment in 2003 that will be channelled into 103 projects. The amount will include US\$662 million in foreign loans guaranteed by the government, and US\$199 million in direct foreign investment. Much of the foreign investment - US\$151.05 million - is expected to go into the extractive industries, including US\$95 million in government-guaranteed loans for a project to build a hydrometallurgical works at the Kokpatas and Daugyztau sulphide ore deposits.

A further US\$30 million in loans will be used to finance an acceleration of work at the Muruntau open-pit gold mine, with the aim of increasing gold output in the period to 2005. Around US\$25.4 million in direct investment is anticipated for the Amantaytau gold-mining project in which Oxus Mining plc has the largest shareholding. The fuel and energy sector is expected to receive US\$74 million, including US\$39 million for oil and gas projects by the holding company Uzbekneftegaz; US\$31 million for the projects of power company, Uzbekenergo; and US\$3.8 million for the first phase of installing modern equipment in the country's coal mines.

## Gold

The gold mining industry plays a leading role in Uzbekistan's economy. After gaining independence the government placed special emphasis on developing the mining industry and increasing gold production. Uzbekistan today is the world's ninth-largest gold producer and is second to Russia in the CIS.

There are proven gold reserves of about 2,100 t, and at the end of 1998, overall reserves were estimated at 3,350 t. There are some 41 identified deposits containing gold, including 33 with gold predominant although only nine are under development and these could yield as much as 85 t/y.

Muruntau is the biggest gold field in Uzbekistan and one of the largest in the world. It holds proven reserves of nearly 1,500 t. The field produces 37 Mm<sup>3</sup>/y of ore with an average gold content of 3.5 g/t. Kyzylkumredmetzoloto, a division of the Navoi Mining and Metallurgical Combine, the country's main gold and uranium producer, is developing Muruntau.

Navoi has ordered US\$30 million worth of equipment for its Muruntau open-pit mine. The equipment will be purchased on credit from Germany's Terex and Caterpillar of the US under sovereign guarantees. Terex will supply O&K hydraulic excavators with 26 m<sup>3</sup> buckets (worth US\$8.7 million) and Caterpillar will supply a fleet of 190 t dump trucks, road graders and other machinery (worth US\$21.3 million). In 2003, the new equipment should raise productivity in the open pit from 35 Mm<sup>3</sup> to 40 Mm<sup>3</sup> of rock and from 21 Mt to 27.5 Mt of ore.

The Uzbek-US joint venture Zerafshan-Newmont, which recycles tailings from the Muruntau lode in central Kyzyl Kum, produced 16.096 t of gold in 2002, 19.4% more than in 2001. In mid-2003, Zerafshan-Newmont expects to complete the use of an EBRD loan worth US\$30 million provided in 2001 to expand production. The money has been used to build new ore-processing capacity, including an additional leaching pad and accompanying infrastructure. The project will extend the life of the operation until 2015 and increase production levels. Zerafshan-Newmont was founded in 1992 to recycle Muruntau tailings. The company was founded by the Navoi Combine, the State Geology Committee and Newmont Mining Corp., which holds 50%. Uzbekistan defined the joint venture's raw material base at 220 Mt of ore (tailings) with an average gold content of 1.4 g/t. The joint venture produces a gold alloy containing up to 10% silver, 5% copper, 3%-4% lead and 2%-3% of other elements.

Amantaytau Goldfields, a joint venture set up in 1993, is developing the Amantaytau field. Amantaytau Goldfields' current shareholders are Oxus Mining with 50%, the State Geology Committee with 40%, and Kyzylkumredmetzoloto with 10%. The company has a charter capital of US\$11.63 million. Initial recoverable gold reserves at Amantaytau were estimated at 3.2 Moz and additional reserves at more than 3.0 Moz. Amantaytau Goldfields later doubled gold and silver reserves at the field through geological exploration from 3.44 Moz to 6.4 Moz gold equivalent.

Oxus believes that Amantaytau could hold 3.21 Moz of gold to be mined from open pits and 9.59 Moz that could be deep mined. The company expected the first gold to be extracted from the field during 2003. Amantaytau Goldfields could produce more than 9 t/y of gold.

The government has called for tenders from foreign investors for the right to develop two gold projects. The Angren gold project involves renovating mines at the Kyzylalma and Kochbulak deposits in the Tashkent region, and the Angren gold recovery plant. It is thought at this stage that the project will require in excess of US\$200 million. The second project involves prospecting and exploring sites within the Dzjamansay property in the Sultan Uvais Mountains of Karakalpakstan, thought to hold 50 t of gold. The successful licence-holder will have the right to mine any commercial deposits that it finds.

The Almalyk Mining and Metals Combine, in which the government owns 97% of the shares, currently holds the licence for the Kyzylalma and Kochbulak lodes. The property contains a proven reserve of 270 t of gold and average ore grades are 6-8 g/t Au.

### **Molybdenum and tungsten**

Uzbek Refractory and Heat-resistant Metals Plant (UzKTZhM) in Chirchik is among the world leading producers of tungsten and molybdenum products, and the leading supplier of tungsten-molybdenum wire, molybdenum roll, refractory metals and monocrystals. The plant derives its raw material for molybdenum production from the Almalyk Mining and Metals Combine in the Tashkent region of Uzbekistan, and tungsten from Russia. The Chirchik plant is running at less than a third of its capacity owing to reduced markets and a shortage of working capital. Uzbekistan's bankruptcy commission has extended until 2003 a rehabilitation programme for the Chirchik plant that started in 2001. The government had planned to offer shares in the plant to foreign investors in 2002, but this has been deferred for two years.

In 2002, Israel's Metek Technology, co-founder of the Uzmetall Technology joint venture, completed a project to upgrade molybdenum-production capacity in Uzbekistan at a cost of US\$19.39 million. Capacity to produce up to 600 t of molybdenum trioxide per year had been introduced at the UzKTZhM. The company has also launched a division to produce a range of molybdenum products, including wire, strip and plate. This is the closing phase of a project to manufacture commercial, value-added molybdenum products in Uzbekistan.

Israeli's Metek Metals Technology plans to go ahead with an US\$80 million project to develop tungsten deposits in Uzbekistan. The project calls for building a mining and milling complex at the Sautbai tungsten deposit in the Kyzyl Kum. This site holds 4 Mt of ore with a tungsten trioxide content of 19,900 t. There are plans to bring other associated tungsten deposits on line. Geologists are also prospecting and appraising the Sarytau tungsten deposit, which is close to Sautbai, and could be twice as big. The State Geology Committee believes that the tungsten deposits in central Kyzyl Kum could hold reserves that are 15 to 20 times the size of Sarytau. The Israeli company

has already begun a feasibility study for the project, which it plans to complete by the middle of the year.

### **Copper, lead, zinc and silver**

Almalyk Mining and Metals Combine is one of the leading non-ferrous metals producers in Central Asia. It is developing the Kalmakyr, Sary-Cheku, and Uch-Kulach fields, and has the Dalneye field in reserve. The combine recently acquired the Kyzylalmasai and Kochbulak fields. The combine mines and processes about 25 Mt/y of ore and its annual output is estimated to be worth more than US\$220 million. In 2002, the combine produced 80,000 t of refined copper from its own raw materials, 6% more than in 2001, and expected to produce 80,000 t of metallic zinc, about as much as in 2001.

Yuzhpolimetall was set up in the summer of 1999 following the bankruptcy of the Shymkent lead plant, and produces refined lead, gold, silver and rare-earth metals. Yuzhpolimetall's S-1 lead was registered in 1999 on the London Metals Exchange as having 'good delivery' status. In 2002, the company produced about 39,000 t of refined lead, about 90 kg of gold and 1,000 kg of silver. There was increased production of bismuth and other rare metals, and, overall, production grew by more than 31%.

In November 2002, Yuzhpolimetall opened a zinc plant in Shymkent that will process tailings from the Shymkent lead plant and the Achisai mill, and the feed will be sufficient to keep the plant operating for ten years. After this, the plant will be able to process ore from the Shalkia deposit, which is rich in zinc and lead. Yuzhpolimetall aims to be producing up to 80,000 t/y of lead and 30,000 t/y of zinc by 2005.

The government has granted Oxus Mining plc of the UK the exclusive right to develop the Khandiza metals field in the Surkhandarya region. Oxus has been exploring the Khandiza site for several years and has drafted a prefeasibility study. By preliminary counts, Khandiza contains 10 Mt of ore with an average content of 9% Zn, 3.6% Pb, 1% Cu and 161 g/t Ag. Oxus is considering the construction of a beneficiation plant to process 1.0 Mt/y of ore and produce zinc, copper and lead concentrates containing 45,000 t of zinc, 20,000 t of lead, 6,000 t of copper and 40 t of silver. Capital costs are tentatively estimated at US\$140-US\$170 million, but will be finalised in the bankable feasibility study.

### **Steel**

Uzbeksky Metallurgical Combine (Uzmetkombinat) increased steel production by 3.8% in 2002 to 450,000 t. Production of rolled products increased by 4% to 419,583 t, including production of sections and bars totalling 300,900 t (up 0.4%). Production of grinding balls increased by 14.6% to 118,703 t.

The combine, located in the Tashkent region, is Uzbekistan's only ferrous metals enterprise. The company covers domestic demand in full and exports some of its product to Russia, Kazakhstan, Kyrgyzstan and Iran. The smelting complex consists of three electric arc furnaces, each with a capacity of 250,000 t. The combine used to receive scrap metal from all of the central

Asian republics. However, these supplies have decreased and the combine is not working to full capacity as a result.

### **Coal**

Uzbekistan has proven coal reserves of approximately 3,000 Mt, including 1,000 Mt of bituminous coal. Domestic demand for coal is about 4 Mt/y. AO Ugol, Uzbekistan's coal monopoly, produced 2.74 Mt of coal in 2002, up 0.9% from 2001. Production of lignite coal grew by 1.5% to 2.66 Mt, while production of bituminous coal fell by 18% to 75,400 t.

Ugol operates in the Angren lignite coal field in the Tashkent region, and in the Shargun bituminous coal field in the Surkhandarya region. It is also exploring and mining coal at the Baisun bituminous coal field in the Surkhandarya region. Angren is Uzbekistan's biggest coal field, with proven reserves of 1,900 Mt. Production at the Angren strip mine in 2002 grew 10.8% compared with 2001 to 2.32 Mt. Deep-mine production fell 23.6% to 308,000 t. Germany's Thyssen-Krupp is delivering stage one of an upgrade at Angren that will cost US\$19.2 million. The project involves converting the Angren pit from cyclic to flow mining. Production will increase from 2 Mt to 3.2 Mt/y.

Uzbekistan plans to invest US\$254.2 million and So177.92 billion (US\$240 million) in coal sector development in the period to 2010. About 90% of the investment (US\$215.7 million and So151 billion) will go towards upgrading the Angren strip mine. Production at Angren should increase from 2.1 Mt in 2001 to 7.8 Mt in 2010, and overburden stripping will rise from 11.2 Mm<sup>3</sup> to 62.7 Mm<sup>3</sup>/y.

The cost of mining coal will fall from US\$10.38 to US\$7.85/t. The programme will be financed in part by Ugol itself, and through foreign credits and foreign direct investment. Overall coal production in Uzbekistan should, according to the programme, increase from 2.7 Mt in 2001 to 9.4 Mt in 2010. Coal as a percentage of all fuels in use will increase from 4.7% to 15%.

### **Natural gas and oil**

Uzbekistan is the second-largest producer of natural gas in the CIS and a major oil producer. The national holding company Uzbekneftegaz increased production of natural gas 1.8% year-on-year to 57.67 billion m<sup>3</sup> in 2002. Production of liquid hydrocarbons (oil and gas condensate) in the reporting period increased 0.3% from 7.18 Mt in 2001 to 7.20 Mt in 2002, including 4.06 Mt of oil (up 2.6%) and 3.14 Mt of gas condensate (down 2.5%).

Uzbekistan plans to export approximately 10 billion m<sup>3</sup> of gas to the North in 2003 owing to the development of new deposits. New potential gas condensate fields have been opened in the Ustyrt region of Karakalpak, in particular, Eastern Berdakh, Uch-say and Surgil. Their development is progressing at a fast pace and major international companies are interested in joint development. Joint exploration and production of hydrocarbon resources is taking place, in particular, with Baker Hughes of the US, Trinity Energy of the UK, and Lukoil and Itera of Russia. Development is continuing at the large Gadzhak field in the south of Surkhandarin region.

The government has nominated Uzbekneftegaz as the authorised company for a joint project under a production-sharing agreement (PSA) with Lukoil and Itera to conduct geological exploration and exploration drilling at oil fields in the Ustyurt and Bukhara-Khiva regions. The company was put in charge of organising a preliminary project feasibility study, holding talks with the investor to sign a PSA, and drafting the agreement. Lukoil and Itera plan to develop oil and gas fields in Uzbekistan under a PSA worth nearly US\$750 million.

Uzbekneftegaz and the Dutch firm, Chase Petroleum, may set up a joint venture in 2003 to develop oil and gas fields in Uzbekistan. According to preliminary information, the total cost of the project may amount to US\$200 million. Chase and Uzbekneftegaz signed a protocol of intent to set up a joint venture in 2002. It is planned that the joint venture will receive two sections in the Bukharo-Khvinsky oil and gas region. Fields have already been discovered in these sections, and oil and gas production could be started in the near future. The development of the Bukharo-Khvinsky region is the fourth oil and gas investment project planned to be implemented in Uzbekistan under PSA conditions.

Uzbekistan's State Property Committee has postponed the privatisation of Uzbekneftegaz so that the national oil and gas company can be restructured in order to make it more appealing to foreign investors. Uzbekistan's national privatisation programme for 2001-2002 called for the sale of a 49% stake in Uzbekneftegaz to a strategic investor, and stakes of 44% in the holding company's subsidiaries, Uztransgaz and Uzgeoneftegazdobycha, and 39% in Uzburneftegaz, Uzneftepererabotka, Uznefteprodukt and Uzneftegazmash. The privatisation consultant is a consortium headed by BNP Paribas. The consortium also includes Arthur Andersen (financial consultant), Chadbourne & Parke of the UK (legal adviser) and LLP BEICIP Franlab Petroleum Consultances (technical expertise).