

## TURKMENISTAN

*By Interfax-CNA*

**T**urkmenistan's GDP increased 23.1% year-on-year in 2003. Industrial output soared by 22%, and accounted for 38% of GDP. Agriculture contributed 18%, construction 8.1%, social services 13.8%, trade 5.8% and transport and communications 5%. Growth was higher than average in the oil refining, textiles and food sectors, and there was also strong growth in gas, chemicals, and cotton-ginning.

Fixed capital investment in Turkmenistan grew by 21% in 2003. The share of investment from government funds rose from 25% to 30% of the total, and the share of investment from company funds dropped from 45% to 40%. Foreign investment remained at around 5%. Investment in manufacturing increased by 25% and accounted for 75% of total investments (73% in 2002).

Turkmenistan's GDP is forecast to grow by at least 22% in 2004, and oil production is targeted to increase to 15 Mt, of which 8 Mt will be refined domestically into gasoline, diesel fuel, lubricants, liquefied gas and other products. The remainder will be exported. Gas production should increase to 78 billion m<sup>3</sup> (60 billion m<sup>3</sup> in 2003).

Turkmenistan has no metal mines of any significance and possesses no metallurgical plants. However, it ranks as the fourth-largest gas producer in the CIS, and fifth as an oil producer. Turkmenistan possesses significant deposits of industrial minerals, notably kaolin and building granite, and also substantial deposits of alunite, eg the Zulfagar deposit in Badkhyz in the south, and Zeaklinskoye.

Turkmenistan has large oil and gas reserves and the country can conveniently be divided into seven oil and gas regions according to the geological environment: west Turkmen, central Kara Kum, Beurdeshek-Khiva, Chardzhou, Zaunguz, Murgab and Badkhyz-Karabil. According to Turkmenistan's Oil, Gas and Mineral Resources Ministry, the Turkmen sector of the Caspian Sea holds an estimated 11,000 Mt of oil and 5,500 billion m<sup>3</sup> of gas. The ministry controls all oil and gas production and there are three principal state-owned companies: Turkmenneft, Turkmengaz and the Turkmenneftegaz trading organisation.

In its Statistical Review of World Energy, BP estimates that at the end of 2003, Turkmenistan's proven oil reserves were 100 Mt and its proven gas reserves 2,900 billion m<sup>3</sup>. Turkmenistan produced 59 billion m<sup>3</sup> of gas in 2003, up 11% from 2002, with exports rising by 10%, to 43.4 billion m<sup>3</sup>. Companies controlled by state-owned Turkmengaz produced 49.9 billion m<sup>3</sup> (up 10%). Turkmenistan produced 10.4 Mt of crude (up 11%), with companies controlled by state-owned Turkmenneft contributing 8 Mt (up 2%).

An industry development programme is aiming for annual gas production of 240 billion m<sup>3</sup> by 2020. Half of Turkmenistan's oil and gas will be extracted from deep structures by 2005. Four wells that will reach between 5,200 and 6,500 m are being drilled in western Turkmenistan in the Goturdepe, Akpatlavuk, Gundogar Cheleken, and Cheleken fields. Turkmenistan also plans to boost oil refining capacity, to 32 Mt/y by 2020. There are plans to upgrade the country's largest oil refineries, Turkmenbashi and Seidi, and to construct two more oil refineries in the Akhal and Mary regions, which will each produce 7 Mt/y.

De Golyer & MacNaughton of the US Gaffney, Cline & Associates Ltd of the UK are being hired to audit natural gas reserves in southeast Turkmenistan, with a view to enabling the government to boost gas exports and honour existing gas-supply deals. The Oil, Gas and Mineral Resources Ministry intends to sign contracts worth US\$393,000 and US\$740,000 with the respective auditors. State-owned gas producer Turkmengaz will finance the contracts with receipts from gas and gas condensate sales that are entered into the State Oil and Gas Industry and Mineral Resources Development Fund. The audit will be performed at fields under development, fields prepared for development and other explored sites.

Turkmenistan is to expand geological exploration and plans to triple the rate of exploration drilling by 2005. The existing programme includes 3D seismic imaging over 2,200 km<sup>2</sup>, 12,300 line km of 2D seismic surveying and gravity surveys over 2,250 km<sup>2</sup>. The State will fund 3D seismic work at Goturdepe and Barsagelmez in western Turkmenistan and at Malai-Chartak, Yashlar, and other blocks in eastern Turkmenistan. More than US\$20 million has been provided to re-equip the geophysical divisions of Turkmengeologii with new 2D resources and computer programmes during 2004-05 .

Turkmenistan expects investments in the oil industry to reach US\$63 billion in 2020. Of that amount, US\$25.6 billion will be invested under production-sharing agreements that are being negotiated with numerous companies. Turkmenistan is offering 32 licences for developing promising areas on the Caspian seabed. Five PSAs are already in force, two for onshore projects and three for areas in the Caspian Sea. Since these projects were launched in 1996, over US\$800 million has been invested in the Turkmen oil industry, including US\$180 million in 2003. Foreign oil production in Turkmenistan could reach 40% - 50% by 2020, compared with 8% at present.

Turkmenistan will invest just under US\$52 million in the development of the Bagadzha gas field. Turkmengaz will hire Canada's Thermo Design Engineering Ltd to build a turnkey facility costing US\$32.7 million to remove sulphur and obtain liquefied gas at the field between January 2004 and October 2005. Turkmenneftegaz will offer contracts worth US\$13.7 million through procurement tenders for the overhaul of existing wells and drilling new wells, and for new infrastructure in the Bagadzha field.

Turkmenneftegazstroi will undertake construction and infrastructure work at Bagadzha and will finance this from the proceeds of sales of natural gas, gas

condensate and refined products. Turkmenneft is signing a five-year contract with a Chinese oil engineering company to provide services for the second column of a well and capital overhaul of idle wells, and those in which sand is present. The State Development Fund will pay for the work from the sale of oil produced from each well repaired.

In November 2003 Dragon Oil began drilling the first of four production wells in the Dzheitun field from the Dzheitun 21 offshore platform. The well will be drilled to 5,200 m. An Astra jack-up rig owned by Lukoil Shel is being used. Dragon Oil and the Government of Turkmenistan signed a PSA in November 1999 for Cheleken, which includes the Dzheitun field (formerly LAM) and the Dzhigalybek field (formerly Zhdanov). Cheleken hold an estimated 600 Mbbl of oil and 2,300 billion ft<sup>3</sup> of gas. Oil production under the contract is planned at 80 Mt. Turkmenistan will receive US\$4.7 billion from the Cheleken project. Malaysia's Petronas and Danish company Maersk Oil are among other companies working in the Turkmen sector of the Caspian Sea.

Zarit, a JV set up by Russia's Itera, Rosneft and Zarubezhneft, to develop several hydrocarbon blocks in Turkmenistan's sector of the Caspian Sea, is starting work this year. Zarit is finalising a PSA with Turkmenistan but a deadline has not been set. Rosneft and Itera subsidiary, Gazkhinvest, each hold 37% and Zarubezhneft holds the remaining 26%.