THE MINERAL INDUSTRY OF

TURKMENISTAN

By Richard M. Levine

The mineral industry of Turkmenistan is based primarily on the extraction of natural gas with production also of oil and a number of important industrial minerals, including clays, construction materials, gypsum, iodine and bromine, sodium compounds and sodium sulfate, sulfur and table salt. Turkmenistan's most important reserves are of natural gas, oil, and industrial minerals, including barite, bentonite, bromine, iodine, sodium compounds, and sulfur. Oil reserves are primarily along the Caspian Sea coast, while gas reserves are along the Caspian coast and in the northern and eastern parts of the country. Following Russia, Turkmenistan was the second largest producer of natural gas among the republics of the FSU.

The GDP of Turkmenistan was estimated to have fallen 5% in 1995 compared with 1994, which was less than the 20% drop experienced in 1994 and 10% drop experienced in 1993. Turkmenistan has been one of the slowest of the countries of the FSU to adopt market economy reforms. At yearend 1995, privatization only had occurred in the consumer services, public catering, and small-scale retail trade sectors. Although a large exporter of natural gas to countries of the Commonwealth of Independent States (CIS), these countries were often greatly in arrears in paying for the gas, and often paid in barter with goods of dubious utility rather than hard currency.

In 1995, Turkmenistan's natural gas production fell by 10% compared with 1994 to 32.3 billion m^3 with the decrease resulting in large measure because of the inability of its customers to pay for the gas. Oil production in Turkmenistan in 1995 increased by 5% compared with 1994 to 4.7 Mt.

Russia and Turkmenistan agreed to form a joint-venture enterprise, Turkmenrosgaz, that will be responsible for conducting all mutual settlements for gas deliveries to CIS countries. Based on this new cooperation with Russia, which includes Russia promising to purchase 10 billion m^3 of gas in 1996, Turkmenistan plans to increase production of natural gas to 48 billion m^3 in 1996.

In 1996, Turkmenistan again will be a major supplier of natural gas to countries of the FSU. Taking into consideration that many of these countries are not able to fully pay for this fuel, Turkmenistan agreed to receiving 40% of the payments in freely convertible currency and 60% in barter.

Because Turkmenistan's only route for exporting its gas was through Russia, Russia had insisted that Turkmenistan supply other CIS countries with gas. Turkmenistan had been seeking to construct an alternate pipeline route for exporting its natural gas that would bypass Russia, but has not succeeded in acquiring financing to accomplish this. A plan formulated in 1994 called for construction of a Turkmenistan-Turkey-Europe gas pipeline that would transverse Iran. The pipeline could transport 28 billion cubic meters per year of gas, from which 15 billion m^3 would go to Turkey and 13 billion m^3 to Europe, but this plan has yet to achieve financing. Other plans under consideration include a pipeline to Pakistan via Afghanistan, a route through Central Asia to China, a route through the Caspian Sea, Azerbaijan, and Georgia to Turkey, and a similar route through Russia and Georgia over existing pipelines.

Turkmenistan was making plans to develop its own metals-producing industries. Based on domestic bauxite reserves, Turkmenistan is planning to construct alumina and aluminum plants and was soliciting foreign investment for this purpose. In 1995, Tukmenistan began construction of its first steel mill that is designed to produce up to 400,000 t/yr of rolled steel. It will be fed mainly by scrap bought outside of Turkmenistan. Turkish construction firms have been awarded contracts to assist in the construction of the new steel mill, which will considerably reduce Turkmenistan's dependence on imported steel.

Turkmenistan's industrial minerals industry is largely administered by the Ministry of Energetics and Industry. Some of the larger industrial minerals plants are: the Turkmenmineral Industrial Association that has the capacity to produce among other things over 200,000 t/yr of native sulfur from the Gaourdak deposit; the Nebit Dag Iodine plant with the capacity to produce among other things 265 t/yr of iodine from the thermal stratum waters of the Nesbitdag-Monjoukley deposit; the Cheleken Chemical plant with the capacity to produce among other things 355 t/yr of iodine from the thermal stratum waters of the Cheleken deposit; and the Karabogaz Sulfate Association with the capacity to produce among other things 400,000 t/yr of sodium sulfate; 100,000 t/yr of bischofite; 35,000 t/yr of epsomite; and 10,000 t/yr of Glauber's salt from buried brines in the Karabogaz Sulfate Bay off the Caspian Sea. Enterprises of the Ministry of Energetics and Industry also produce a range of chemical compounds made from iodine and fertilizer and fertilizer materials including ammonia, ammonia nitrate,

nitric acid, superphosphate, sulfuric acid, and urea.

Turkmenistan was planning to further develop its industrial minerals industry and was seeking foreign investment for a range of projects including: development of capacity to produce bentonite, boron compounds, soda ash and caustic soda, cement, iodine and bromine and their compounds, lithium chemicals, metallic magnesium and magnesium compounds, potassium fertilizers, strontium chemicals, and table salt.

Owing to its large reserves of natural gas, Turkmenistan could be able to derive significant revenues from natural gas if it succeeds in establishing a pipeline network whereby it can transport this gas freely to world markets. Turkmenistan also has large reserves of certain industrial minerals including sodium compounds. These reserves will have to be examined in terms of economically marketing them on world markets and also in terms of marketing them in the FSU, particularly when consumption begins to increase in the FSU.

OTHER SOURCES OF INFORMATION

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TABLE 1
TURKMENISTAN: STRUCTURE OF THE MINERAL INDUSTRY FOR 1995

(Thousand metric tons unless otherwise specified)

Commodity		Major operating company	Location of main facilities	Annual capacity e/
Ammonia		Maryzaot Association	Mary region	400,000
Bentonite		Oglany Mine	Oglany region	100,000.
Cement		Byuzmein cement plant	Byuzmein	1,000,000
Gypsum		IA Turkmenmineral	Mukry, Tagorin deposits	300,000
Do.		Wastes from Gaourdak sulfur deposit	Gaourdak	400,000.
Iodine and bromine		Cheleken plant	Cheleken region	355 (iodine). 4,740 (bromine).
		Nebit Dag plant	Vyshka	255 (iodine). 2,370 (bromine).
Natural gas	billion cubic meters	Deposits: Achakskoye, Gygyrlinskoye, East and West Shatlykskiye, North and South Naipskiye, Dauletabad-Donmezskoye	Northeastern, eastern southeastern, and southwestern part of country	90 total.
Petroleum:		Deposits:		
Crude		Nebitdag, Cheleken, Kum Dag, Koturtepinskoye, Barsa-Gelmesskoye, Burunskoye, Kuydzhikskoye, Gograndagskoye, Okaremskoye, Kamyshldzhinskoye	Southwestern part of country on Caspian Sea	5,500,000 total.
Refined		Chardzhou refinery	Chardzhou	6,000,000.
		Krasnovodsk refinery	Krasnovodsk	5,000,000.
Sodium sulfate		Karabogaz Sulfate Association	Bekdassh	400,000
Sulfur		IA Turkmenmineral	Gaourdak deposit	240,000

e/ Estimated. NA Not estimated.
1/ Reported number