

## THAILAND

*By a Special Contributor*

The Thai economy was still recovering last year with an estimated growth of 4.0-4.5%, a small disparity from 1999. The growth in the second half of the year was moderate and somewhat in line with the rate of private consumption and overall investment. The public sector was more scrupulous about its spending as public debt needed to be curbed. Domestic demand, the key factor for economic expansion, recorded a slight growth. Economic growth in the years ahead is expected to be similar. Production grew at the same rate as 1999. The value of exports grew by 19.6%, to US\$67.9 billion. Manufactured products exceeded 85% of the total exports. As a result, production for export may be curbed. Categories recording a robust growth included vehicles, electronics, electrical appliances and jewellery. Domestic demand grew by a modest 4.0-5.0% as did private consumption, which stabilised in the second half. Private investment is estimated to have grown by 12.0-15.0%.

The overall budgetary deficit declined to Baht115.9 billion or 2.4% of GDP in the fiscal year 2000. Although there is a need for more budgetary discipline, the government still has a role in stimulating the economy by targeting the deficit for 2001 at Baht105 billion. Government revenue in 2000 totalled Baht748.1 billion, 5.4% higher than the previous year. The item which increased considerably was import tax. Government expenditure rose by 3.5%, to Baht850.6 billion. A substantial increase in public debt urged higher discipline in government spending. As of end-September 2000, the public debt (including that of the state enterprises) accounted for 55.7% of GDP.

### **General**

The Department of Mineral Resources (DMR) attended the conference of the South East Asia Iron and Steel Institute (SEASI). The

industry was encouraged to enter the e-commerce era to improve its performance, and to concentrate on business analysis, marketing and information technology. In Thailand, steel production, especially steel plate and structural iron and steel, is increasing rapidly. In the steel plate sector, the Tin Mill Black Plate (TMBP) project to produce black steel plate as a raw material for tin-coated and chromium-coated steel has been established in order to reduce heavy dependence on imported material. Also, production of thin steel sheet of 0.8 mm thickness has begun in order to accommodate a high demand in both the domestic and global markets.

The DMR has expanded its role and duty to other science and geology related activities such as fossil preservation and the promotion of general education. It was also active in disseminating geological knowledge for land-use planning and the study of earthquakes, and changes in the beach profile along the coast of Thailand.

In order to protect the environment and enhance environmental quality, the DMR has engaged university and research institutions to study and conduct demonstration projects for suppressing dust from quarries and crushing plants.

The over-exploitation of groundwater in Bangkok and its surrounding provinces has begun to show critical warning signs in the past few years. Rates of land subsidence have risen in some groundwater withdrawal areas, while seawater has intruded into the inland aquifers at a remarkable rate. As groundwater management is primarily the responsibility of the DMR, it has conducted a study to mitigate the problems and to develop a master plan. An engineering solution as well as management measures were recommended; for artificial groundwater

recharge to control seawater intrusion, and for aquifer storage and recovery to maintain the permissible yield and stabilise land subsidence rates, were measures taken into consideration.

**Potash**

Asean Potash Mining Co. Ltd has completed the first incline tunnel at its Bamnet Narong project which is scheduled to produce 1 Mt/y of KCl. The length of tunnel is 935 m to a depth of 180 m from surface and cost approximately Baht365 million. The first level of mine was developed and potash production was approximately 120,000 t. Around 100,000 t of rock salt were also produced as a by-product. A second 8 x 4 m incline, to transfer potash to a fertilizer processing plant, has yet to be constructed. It will have a total length of 1,281 m to a depth of 180 m and will be lined with reinforced concrete. Construction will take about 18-24 months and the fertilizer plant is planned for 2004.

Bamnet Narong is exploiting carnallite. A second project, Samboon, located near Udon Thani, is based on a sylvinite resource, sufficient to produce 2 Mt/y of KCl over 23 years. The project operator is Asia Pacific Potash Corp. Norsk Hydro was expected to take a 20% equity position but it has placed its participation on hold.

**Petroleum**

The DMR has announced a new round of petroleum concessions to private sectors, to explore and produce petroleum, totalling 87 plots onshore and offshore in the Gulf of Thailand and the Andaman Sea.

There were five interested companies that had already submitted expressions of interest for the concessions: Thai Shell Co. Ltd, CNCP (Hong Kong) Co. Ltd, Pacific Tiger Energy (Thailand) Co. Ltd, Harrods Energy (Thailand) Co. Ltd, Chevron Offshore (Thailand) Co. Ltd.

Their proposals will be considered further by the DMR. At present, there are 26 petroleum production areas, 10 onshore and 16 offshore.

Production of natural gas last year was about 1,885 million ft<sup>3</sup>/d. Liquid natural gas output amounted to 50,640 bbl/d and crude oil output reached 60,922 bbl/d. This is equal to 435,000 bbl of crude oil or around 38% of annual domestic energy demand.

Unocal (Thailand) Co. Ltd. has discovered a new deposit in the Gulf of Thailand, located in the north of Erawan field, 145 km offshore. Production is expected soon at a rate of 15,000 bbl/d. Reserves are estimated at 33 Mbbl of crude oil and 284 billion ft<sup>3</sup> of natural gas for a working life of around eight years. The investment for the development will cost

<b>Mineral Production of Thailand, 2000 (t except where stated)</b>	
Antimony metal	77
Lead	24,760
Steel	7,487,301
Tantalum powder	103
Tin metal	8,565
Zinc	151,493
Zircon	50
Tungsten (Wolfram)	27
Tungsten (Scheelite)	27
Talc	7,390
Shell	3,110,203
Rock Salt	792,250
Quartz	5,177
Phosphate	3,260
Manganese	225
Limestone	4,349,950
Lignite	17,713,753
Kaolin	507,974
Gypsum	5,860,326
Gemstone (carats)	185,600
Fluorite	4,745
Potassium Feldspar (Ground)	4,720
Sodium Feldspar (Ground)	325,064
Barite	49,220
Ball Clay	394,154

about US\$250 million. This will be the first crude oil production in the Gulf of Thailand by Unocal (Thailand) Co. Ltd, and will contribute about 40% of total domestic crude oil production.

### **Coal**

Thailand's lignite production decreased last year because domestic consumption of electricity and energy was lower. Output was 17.71 Mt worth Baht8,857 million. Imports of high-quality coal (anthracite, bituminous and other coal including powder coal) from neighbouring countries amount to approximately 2.91 Mt.

### **Non-Ferrous Metals and Metallic Minerals**

Thailand relies on imports for most of its metal requirements. At present, about 70-90% of tin and zinc are imported in the form of concentrate; copper and aluminium are all imported in the form of metal.

The country possesses five lead smelters but only one plant produces metal from

concentrate, the rest recycle lead metal from batteries. Production last year was 36,300 t/y, of which 67% was from recycled batteries. Domestic demand for lead is around 62,000 t/y. Lead imports were valued at Baht796 million.

### **Tin**

Thailand Smelting and Refining Co. Ltd. (Thaisarco) is the only tin producer, treating mainly imported concentrate. It can produce 29,000 t/y. Domestic consumption is 29,736 t/y, however, domestic consumption is declining, and export of tin is planned.

### **Zinc**

There is only one zinc smelter, operated by Phadaeng Industry Co. Ltd., with a production rate of 105,000 t/y. Phadaeng plans to use more domestic zinc ore silicate to decrease the reliance on imports of zinc sulphide concentrates.