INDONESIA

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It was another tumultuous and turbulent year for Indonesia in 2001. Dramatic political events resulting from the confrontation between the President and Parliament had dominated the national scene during the first half of the year.

It culminated in the ousting of the clergyman turned President, Abdulrachman Wahid in mid-2001, after about 20 months in office. Apart from his erratic style of governance, his demise was triggered by his refusal to appear before Parliament and clarify in person matters relating to his alleged complicity in the so-called 'BULOG-gate I' swindle involving the State Logistics Agency and the mis-appropriation of Rp35 billion of State funds. His reckless response, which was to issue a presidential decree seeking to disband Parliament (DPR) and the People's Consultative Assembly (MPR), proved to be fatal and only served to hasten his downfall when Parliament reacted by demanding his immediate resignation.

Abdulrachman Wahid was promptly succeeded in the same month of July 2001 by Megawati Sukarnoputri, daughter of Indonesia's first President and founding father Sukarno. Being chair-woman of the PDI-P Party, the largest political party in the country, Parliament elected Megawati by an overwhelming majority vote as Indonesia's 5th President.

The Indonesian economy, which last year had begun to recover from the Asian monetary crisis, was hit by the global economic downturn during the year, and received a further blow as a result of the events in the US on September 11. Exports declined, especially those earmarked for Japan and the US, Indonesia's main export destinations for non-oil/gas products.

Barely a month later in early October 2001, another high-level scandal rocked Indonesia's political foundations. On this occasion the chairman of Parliament, Akbar Tanjung, who also happened to be the chairman of the Golkar Party - the second largest party in Indonesia-was indicted for implication in a 'food for the poor' distribution scandal. This allegedly happened in 1999 when he was Minister/Secretary of State during the Habibie Presidency. It had involved a sum of Rp40 billion (US$4 million) also drawn from the funds of the State Logistical Agency and therefore labelled 'BULOG-gate II'.

Since no food distribution can be traced, there was a general suspicion that the funds were diverted to finance Golkar's 1999 general election campaign. Akbar Tanjung was declared suspect in January 2002, followed by his detention by the Attorney General's office in early March 2002. In spite of these shameful events, the political climate and overall condition seemed to stabilise in the second half of 2001.

There were far fewer protest demonstrations, and no confrontation between President Megawati and Parliament. Also, there has been a better appreciation by the IMF of Indonesia's economic reform policies, and in November the IMF approved the disbursement, after eight months of delay, of a US$360 million loan tranche.

The army made significant progress in quelling the GAM separatist movement in Aceh, and during a gun battle it killed GAM's supreme commander, Abdullah Syafe'i. Elsewhere, calm was restored to Poso, in Central Sulawesi, where religious conflict was brought to a halt through the mediation of the central government at a conference in Malino, South Sulawesi. A similar gathering in February this year, Malino II, was successful in pacifying the religious war raging in Ambon for the past three years, which cost about 6,000 lives.

The religious leaders from both camps, Christian as well as Muslims, who attended the conference and who were tired with the ongoing conflict vowed to stop this senseless war among ethnic brothers. However, this positive mood for reconciliation by the majority of both religious groups may still be spoiled by a small group of extremists from both sides. Indeed, in early April after two months of peace, a bomb blast at a busy market place in Ambon disturbed the peaceful situation once again. As was reported in last year's *Mining Annual Review (MAR)*, peace had already returned in the North Moluccas.

The economy in 2001 managed to post growth of 3.3%, despite the country being faced with serious financial problems. These included: a large foreign debt of US$137.6 billion (of which US$74.16 billion was government debt); a domestic debt, mostly in the form of government bonds, totalling Rp659 trillion (US$63.4 billion): the slow pace of the bank restructuring programme in selling the assets of ailing banks to alleviate the budget deficit; gross misappropriation of Bank Indonesia's liquidity credit injections (BLBI) by the recipient ailing banks involving an amount of Rp144.5 trillion; the extended delay of the privatisation of state-owned companies; and, last but not least, the drastic decline in direct foreign investment inflows.

The economy was buoyed mainly because of the rise in domestic consumer spending and, although declining from last year's peak, a solid export performance amounting to US$56.03 billion. This was higher than the 1997 export figure - before the Asian financial crisis took hold. The contribution of those small and medium-sized businesses not too dependent on imported raw material and goods was significant.

The rupiah exchange rate, which weakened to a level of over Rp11,000:US$1.00 during the first half of the year, rebounded to Rp8,600:US$1.00 following the installation of President Megawati in July, but declined again to an average of Rp10,400:US$1.00 through the remainder of the year.

Inflation rose to 12.55% from 9.35% in the previous year and is projected to rise even further this year because of the introduction of higher tariffs for electricity and higher fuel prices.

The mining industry, against all odds, fared remarkably well. Production of all significant metallic mineral commodities, and also coal, improved, gold especially. This was largely due to the massive contribution of by-product gold at Freeport's Tembagapura (Grasberg) copper mine, where output of 109.18 t increased Indonesia's total gold production last year to more than 166 t.

Silver production also increased, from 314 t in the previous year to 348 t. Copper concentrate production from both Freeport Indonesia's Tembagapura mine in Papua and Newmont's Batu Hijau mine in southwest Sumbawa island, increased slightly to 3.3 Mt with contained copper rising to 1.05 Mt, a new record. PT Smelting, the newly-built copper smelter near Gresik, East Java, produced a record 217,500 t of refined copper, an increase of 25% over 2000. The two nickel producers, PT Inco Indonesia and PT Aneka Tambang, both having nickel smelting operations in Sulawesi, each posted production increases. Inco's nickel-in-matte production rose to 62,600 t from 59,200 t the year before, and Aneka Tambang's nickel in ferro-nickel production rose slightly to 10,302 t. About 1,000 t of the ferro-nickel produced, however, was a result of toll smelting at Pamco's plant in Japan because in Indonesia, output at the Pomalaa I ferro-nickel plant was affected by a furnace explosion in mid-year, which crippled the plant for about three months.

Aneka Tambang's nickel laterite ore production from its nickel mines on Gebe Island, (north Moluccas) Buli Bay area, (east Halmahera), as well as from Pomalaa, amounted to 3.6 Mt, an increase of 20% on the previous year. It comprised 2.5 Mt of saprolite and 1.1 Mt of limonite ores. There was an increase in the export of saprolite ore, mainly from the Buli Bay area, as a result of enlarged orders from Japanese smelters.

Coal production and exports continued the uninterrupted annual increases achieved since 1980, with output rising by 20% to 92 Mt, and exports increasing by 15% to 66.5 Mt. There were ownership changes for some mines.

PT Bumi Resources Tbk purchased an 80% shareholding in PT Arutmin's mine in South Kalimantan from BHP Minerals Exploration Inc. PT Bumi also intends to acquire the remaining 20% from Indonesia's Bakrie Group. PT United Tractors Tbk (UNTR), the 90% owner of PT Berau Coal in East Kalimantan, intends to sell 60% of its shares in the coal-mining company and as of April 30 this year had found four serious bidders.

The dispute that has lasted for more than two years between the East Kalimantan provincial government and PT Kaltim Prima Coal (KPC), regarding the sale of 51% of the latter's shares, came to a head during 2001 when the provincial government sued the coal company for US$776 million for unpaid dividends and other expenses. The suit was without foundation since the province does not own any shares in KPC. Under the original Coal Co-operation Contract between central government and KPC it was stipulated that KPC must offer 51% of the shares in the company for sale. The price was finally agreed at US$419 million (from a total of US$822 million for 100% ownership of the shares).

PT Tambang Timah (65% state-owned) had a traumatic year. Apart from falling tin prices, which hit a low of US$3,595/t in September, illegal mining by thousands of private miners was rampant in Timah's working area. To add insult to injury, the regional government granted the illegal miners the right to export their tin concentrates to Singapore, Malaysia and Thailand. This exacerbated the market oversupply and caused tin prices to weaken further. The government has since announced that it will impose a ban on such exports by mid-2002. The financial situation of PT Timah worsened in the second half of the year. It began to incur heavy operational losses and had to stand down around 3,750 workers for two months.

PT Timah's output of tin-in-concentrate last year reached 40,535 t (part of which was purchased from illegal miners). PT Koba Tin produced 15,714 t of tin-in-concentrate, partly purchased from illegal miners. The total production from both tin companies thus amounted to 56,249 t. During the year, the 75% of shares held in PT Koba Tin by Iluka Mining were sold to Malaysia Smelting Co., with PT Timah still owning the remaining 25%.

Although disturbances by illegal miners and labour strikes at other mining locations declined, the overall investment climate in the mining sector remained gloomy. Many mining investors were concerned about the negative effects of the Law on Regional Autonomy on their projects, and pending the issuance of the new Mining Law, the government has recently issued Regulation No.75/2001 to bridge the transition period and overcome the uncertainties of working under the new regional autonomy regime.

Practically no significant new investments were forthcoming during 2001, with the exception of the oil and gas sector, and by those mining companies who had already made large investments and been in operation for some time. According to PriceWaterhouse-Coopers, realised investment in mining (excluding oil and gas) dropped from US$1 billion in 2000 to less than US$500 million in 2001. Even in the coal mining sector, which is considered to be a lucrative business, 33 coal companies with projects approved since 1998 suspended their investment plans.

Factors which impede investment include: the uncertain security conditions; inconsistent laws and weak law enforcement; the plague of illegal mining; the 1999 Forestry Law No. 41 prohibiting open-pit mining in protected forest areas; plus certain other government/regional government regulations. There is a clear preference by investors to deal with the central government rather than with the regional governments with whom they will have to deal under the new Law on Regional Autonomy. There are indications that the government has plans to revise the Regional Autonomy Law, but since this concerns a sensitive political issue, implementation of it would require approval from Parliament and this could prove to be an uphill battle for the government.

Coal

Of the 92 Mt of coal produced last year, state-owned PT Bukit Asam Coal Co. (PTBA) operating in south and west Sumatra contributed 10.21 Mt; 20 coal-contractors having first, second and third generation coal contracts contributed 76.12 Mt; 13 private miners with Mining Authorisation Rights (KP-holders) contributed 5.58 Mt; and small mining co-operatives with Mining Authorisation Rights contributed some 14,800 t.

The majority of coal production, as in previous years, came from the coal mining contractors (83% of national output), and most of the 20% increase in tonnage came from the first generation contractors. PT Arutmin raised output by 1.36 Mt to 9.53 Mt; PT Kaltim Prima Coal by 2.43 Mt to 15.53 Mt; PT Kideco Jaya Agung by 2.34 Mt to 10.38 Mt; PT Adaro Indonesia by 2.23 Mt to 17.7 Mt; PT Berau Coal by 1.87 Mt to 6.75 Mt; and PT Indominco Mandiri by 1.52 Mt to 4.43 Mt. Most of the first generation coal contracts have yet to attain their full capacity and further increases in production are expected over the next couple of years.

There were more modest increases last year involving the second generation coal contracts: PT Gunung Bayan Pratama Coal raised output by 653,000 t to 1.96 Mt; PT Bahari Cakrawala Sebuku by 485,000 t to 1.97 Mt; and PT Jorong Barutama Greston with a 1.37 Mt increase to 2.56 Mt. The recently begun third generation coal contracts involving five companies posted a total increase of about 1.0 Mt. Two of the KP-holders, PT Kitadin and PT Bukit Baiduri, along the Mahakam River each produced just over 2 Mt.

Production by PTBA in 2001, at 10.2 Mt, was 4% below the annual target of 10.6 Mt. The Tanjung Enim mining unit in south Sumatra, which operates the Air Laya, Muara Tiga and West Banko mines, produced 8.95 Mt; the Ombilin Mining Unit in west Sumatra produced 0.56 Mt; and its subsidiary, PT Batubara Bukit Kendi, to the south of the Tanjung Enim Mining Unit, produced 0.7 Mt.

Revenue declined owing to the implementation of Government Regulation No.144/2000, which declared the conversion of coal from a taxable commodity to a non-taxable one, preventing restitution of the 10% sales tax, while the limited capacity of the railway to the Tarahan coal terminal was also a constraining factor in achieving production and sales/export targets. The transport capacity limitation meant that PTBA could only supply 6.1 Mt out of a total requirement of 9.2 Mt to the Suralaya power plant.

As mentioned earlier, some changes in ownership of operating mines have taken place. In 2000, Banpu of Thailand took over PT Indominco Mandiri (a first generation coal contractor) and PT Kitadin mine (a KP-holder) from the Salim Group. In 2001, 80% of the shares of BHP Minerals Exploration Inc. in PT Arutmin Indonesia were sold to PT Bumi Resources Tbk. The latter company also intends to acquire the balance of 20% of the shares in Arutmin held by the Bakrie Group. The purchase of the 80% share in PT Arutmin is reported to amount to US$148.5 million.

PT United Tractors Tbk, a 90% owner of PT Berau Coal has announced its intention to sell 60% of its shares in the coal mining company to comply with its debt repayment obligations which are due sometime in 2002. There were initially four serious bidders for the purchase, but three of them, BHP Billiton, Glencore and PT Bukit Asam, withdrew after the due diligence process.

Tenaga Nasional Bhd (TNB) the Malaysian national power company, is in the process of taking over all the shares held by Dynamic

Acres Sdn Bhd in PT Kadya Caraka Mulia, a third-generation contract coal-mining company operating in south Kalimantan, for a sum of US$59.5 million. TNB intends to diversify its power generation fuel mix, which is currently 80% dependent on gas. The due diligence process is nearing its final conclusion and the sale is expected to be realised soon.

Coal is a much favoured fuel for electricity generation not only in Indonesia, but also amongst other ASEAN members and the newly-industrialising countries in the region because of coal's cost effectiveness and abundant availability. Thus despite the number of adverse factors impeding investment and which have already been referred to, the marketing prospects for Indonesia's coal are excellent and the enthusiasm to invest in the coal business remains quite strong, as seen from the large inflow of third generation coal contractors (77 in all).

Last year was marred by the lengthy dispute between PT Kaltim Prima Coal (KPC) and the provincial government of East-Kalimantan. The latter claimed to have title on KPC's dividend payments, dating back to 1996 when KPC was contractually required to start offering 15% of its shares for sale. Under its coal contract, KPC begin offering some of its shares for sale to domestic entities (government, companies or individuals) beginning after the fourth year. The requirement stipulated an initial offer of 15% of the issued shares, to be followed with 8% after the fifth year and consecutively 7% in the following years until the end of the tenth year of operation, when a total of 51% shares should have been offered for sale.

The provincial government erroneously claimed that it was entitled to receive the unpaid dividends starting from 1996 and should have priority in buying all the 51% of issued shares on offer. It has sued KPC, claiming US$776 million (including expenses). The claim appears unfounded as the provincial government was not a signatory to the original agreement between KPC and the state coal company, PN Tambang Batubara, in April 1982 (there had been no autonomous government at the time) and has not purchased or paid for any of the shares that had been offered in the earlier years. Also, the coal contract between Tambang Batubara and KPC is a first generation one, and once approved its terms and conditions cannot be changed.

KPC has extended the period for tendering 51% of its shares for a further three months until the end of June 2002, and has stated its willingness to sell shares at the former agreed price, provided that the regional government retracts its indictment before the court.

Illegal miners are still bothering the coal companies especially those who are operating in coastal areas such as PT Arutmin in southeast Kalimantan. In general, however, their activity has declined.

Nickel

As noted already, nickel production and exports increased during 2001, in particular as result of Inco's expansion at its Soroako plant and the increased production and sales of saprolite ore to Japan by Aneka Tambang.

Although Soroako has not yet reached it full capacity (68,000 t/y) PT Inco achieved a new production record of 62,600 t. This was 1,040 t short of the target of 63,640 t set for the year owing to the mining of lower-grade ore and more complex geological conditions.

In order to maintain sufficient ore grade to meet the needs of the processing plant, Inco plans to embark on a more extensive drilling and test pitting programme this year, and to extend exploration activities to add new resources at Petea - adjacent to the East Block orebody. This should present less complexity and lower strip ratios. Production in 2002 is expected to be lower, however, as a result of a planned furnace rebuild scheduled to start in the fourth quarter.

The nickel market weakened considerably last year as result of a decline in both non-stainless steel as well as stainless steel applications. The decline in nickel demand was exacerbated by increased supplies from Western Australian laterite nickel producers, and led to a supply surplus. As a result, LME prices dropped significantly, from US$3.17/lb at the start of the year to US$2.64 in April and to US$2.00 at the end of October. Inco's realised price of nickel in matte dropped from an average of US$3.06/lb in 2000 to a low of US$2.19/lb during 2001.This was compounded by a rise in the unit cost of production owing to the lower ore grades and the higher cost of overburden removal. Revenue dropped from US$401.6 million in 2000 to US$296.4 million.

Net earnings plunged by 88.5% to US$9.26 million in 2001. Inco's ore reserves in the Soroako plant area at year end amounted to 55 Mt of proven reserves averaging 1.66% Ni and 42 Mt of probable reserves averaging 1.74% Ni. PT Inco still possesses substantial nickel laterite reserves at Bahudopi near the Gulf of Tolo and at its Pomalaa-East deposit to the east of Antam's Pomalaa nickel area.

Despite the explosion at the Pomalaa I ferro-nickel smelter and the depressed LME nickel prices, Aneka Tambang's nickel division performed remarkably well. Production of nickel in ferro-nickel rose by 10% to 10,302 t, including the toll- smelting of some 1,000 t of nickel at the Pamco smelter in Japan to fulfil Antam's commitment to its customers.

Mining of high-grade ore rose by 18% to 2.50 Mt as a result of mining saprolite ores at Pomalaa (southeast Sulawesi), Gebe Island (north Moluccas) and Buli Bay (eastern Halmahera), and the mining of low-grade limonite ores at Gebe island and the Buli Bay area, rose by 20% to 1.12 Mt. Aneka Tambang's sales revenue from ferro-nickel produced at the Pomalaa I and Pomalaa II smelters, and from its export of saprolite and limonite ores amounted to Rp1,070 billion, or US$103.58 million (US$1.00 = Rp10,330), equivalent to 61% of Antam's total mineral product sales of Rp1.730 billion (US$167.5 million). Overall, net revenues from the sale of ferro-nickel and nickel ore increased slightly compared with 2001 in spite of lower nickel prices. Antam's overall net profits amounted to Rp358 billion (US$34.66 million) compared with Rp383 billion in 2000.

The due diligence report for the Fe-Nii III project was presented by IKB (Industrie Kredit Bank) to Hermes (German Export Credit Agency) in October 2001. It recommended a detailed project analysis study, to be carried out by PricewaterhouseCoopers. This caused some delay to the start of construction of the 13,000 t/y capacity plant. An initial plan to feed the plant with saprolite ore from Bahubulu Island in the Gulf of Lasolo had to be cancelled because the island falls under the protected forest law.

Aneka Tambang currently is negotiating with PT Inco for the possible supply of saprolite ore for its projected Pomalaa III plant from PT Inco's neighbouring Pomalaa-East area.

BHP Billiton Ltd announced that it would suspend its PT Gag Island project by the end of March 2002, pending the abrogation of Forestry Law No. 41 of 1999. This law changed the status of Gag Island from 'production forest' classification to 'protected forest' which prohibited open-pit mining operations. PT Gag Island, supported by the Department of Mines and Energy, are seeking the return of Gag Island to 'production forest' status. The Mines and Energy Minister has said that Gag island will be excluded from the law but formal confirmations have yet to be issued by the Forestry Department.

Falconbridge, which held a 37.5% stake in the Gag Island nickel project, has withdrawn and has subsequently expressed its intention to join Aneka Tambang in the development of the prospective laterite deposits in the Buli Bay area where intensive exploration by Aneka

Tambang in the past few years has confirmed substantial saprolite and limonite reserves.

In fact mining of saprolite ore at Gee Island in the Buli Bay area, for shipment to Pomalaa's nickel smelter, commenced since a few years ago. This was followed last year by the opening of a new mine on the Tanjung Buli peninsula. Both mines commenced export shipments to Japan in August 2001, and these will increase during 2002 as a result of bigger orders from Gokokai, a consortium of Japanese nickel smelters. The Buli Bay area ore reserves to date amount to 63.2 Mt of limonite ore averaging around 1.48% Ni and 0.15% Co, plus 40.3 Mt of saprolite averaging 2.6% Ni.

Inland and to the west of Buli Bay, in the Sangaji locality, inferred reserves totaling 335 million wet metric tonnes of limonite ore averaging 1.33% Ni and 0.15% Co, plus 75 Mwt of saprolite ore averaging 2.44% Ni have been identified by Aneka Tambang's geologists.

Meanwhile, metallurgical testwork and scoping studies on the Weda Bay laterite deposit southwest of Buli Bay continued, prior to proceeding with a bankable feasibility study. The Weda Bay nickel project which would employ high pressure acid leaching of the ore, would send its mixed-sulphide product to the Harjavalta refinery in Finland. The project has stalled somewhat, pending resolution of the metal refining cost issues on the mixed Ni and Co sulphide product which arose between PT Weda Bay and Aneka Tambang.

Copper

Collectively, Indonesia's two world-class copper mines - Tembagapura, operated by PT Freeport Indonesia (PTFI) and located in Papua Province (formerly called Irian Jaya), and the Batu Hijau mine operated by PT Newmont Nusa-Tenggara in southwest Sumbawa Island, produced 1.05 Mt of copper in concentrate, slightly up on the previous year (1.01 Mt).

PTFI's copper production was mostly contributed by the huge Grasberg open-pit mine with some additional ore from underground, from the recently developed Deep Ore Zone (DOZ) mine (5,500 t/d of ore during 2001).

Copper concentrate production benefited from higher mill throughput rates (237,800 t/day versus 223,500 t/day in 2000) although the grade declined to 1%, from 1.07% in 2000, causing the total annual concentrate production to decrease slightly to 2.42 Mt. However, higher gold ore grades (1.43 g/t versus 1.10 g/t in 2000) and higher mill recovery rates of gold (89.5%) raised gold output significantly, by 42% to 109.178 t. Also, silver output increased by 20% to 163.8 t. The copper content in the concentrates declined by 2.6% to 756,385 t as a result of lower ore grades. Because of last year's incident at its Wanagon overburden stockpile, the operation at Grasberg was temporarily reduced (see MAR 2001), but since January 2001, and with government approval, PTFI has resumed normal operations.

Helped by the higher mill recoveries of gold, PTFI's cash production costs for copper (after gold and silver credits) declined to US$0.07/lb, 26% lower than the the record achieved in 1999. PTFI has thus become the world's lowest cash cost producer of copper. Apart from its Grasberg and DOZ mines, the company has several other potential ore bodies in the Block A area earmarked for mining, eg, the Grasberg block cave, Kucing Liar, Ertsberg Stockwork Zone, Mill Level Zone, Big Gossan, Dom Block Cave and Dom open pit, not to mention the potential in Block B, Eastern Mining and Nabire Bakti areas which are still in the exploration stage. These potential orebodies should secure PTFI's operation far into the 21st century.

PTFI is intensively continuing its exploration activities, especially in the immediate surroundings of the Grasberg mining complex in Block A. Field exploration in the 9,200 km2 Block B, Eastern Mining and Nabire Bakti area has been temporarily suspended but evaluation of previously drilled core tests continued. By the end of 2001, proven and probable reserves amounted to 39,400 Mlb (17.87 Mt) of copper, 50.2 Moz (1.561 t) of gold and 114.5 Moz (3,561 t) of silver. In 2001, the company added a total of 1,000 Mlb (0.45 Mt) of copper and 2 Moz (62.2 t) of gold.

Geological resources now total 1,400 Mt of ore, representing potentially recoverable metal of 16,700 Mlb (7.87 Mt) of copper and 16.3 Moz (506.9 t) of gold. Much of the resource forms a ‘sheath’ around the proven reserves in the Grasberg complex.

Newmont’s Batu Hijau copper mine had an excellent operational year during 2001. Copper production increased by 26% to 298,000 t, while associated gold output was up by 65% over the previous year reaching 16.31 t. Silver output increased by 31% to 49.64 t. The production increases combined with gold credits, reduced cash operating costs from US$0.57/lb in 2000 to US$0.36/lb, much lower than the projected costs of US$0.45/lb. Reserves at Batu Hijau amount to 9,700 Mlb (4.4 Mt) of copper and 11 Moz (342.1 t) of gold.

The copper smelter in Gresik, east Java, PT Smelting (25%-owned by PTFI and 75% by Mitsubishi) had an excellent operating year. Its concentrate feed came mainly came from PTFI, and refined output increased by 25% to 217,500 t, which was 9% above its design capacity. The plant is expected to produce in excess of design capacity in 2002 and to have one of the lowest average cash costs in the industry.

Tin

The Indonesian tin industry especially PT Timah, the largest tin-producing company in the world and 65% state-owned, is in a critical financial situation.

The main reasons include: the economic slowdown in the industrial countries and the resultant lower demand for tin and accompanying lower tin prices; the plague of illegal miners, amounting to some 6,000 units involving 30,000 people last year, and a regional government decision to grant export permits for tin concentrates produced by the illegal miners.

As was noted in PT Timah’s Annual Report for 2001, “the accumulated impact of such events might be a threat to our survivability and sustainability if it were not addressed properly and immediately”.

The 6,000 small mining units have infringed Timah’s mining rights, exploiting the company’s working area and extracting valuable tin ore from the remaining reserves. To give an idea of the scale of the problem, during a three-and-a-half-month period, at least 18,900 t of concentrates produced by illegal miners were exported. The exports went mostly to Singapore, Thailand and Malaysia. The supply helped to flood the market with unwanted tin and dragged the price of tin down to a low of US$3,595/t in September 2001, from US$5,000/t in the first quarter of the year. After September, the price fluctuated between US$3,800-4,200/t.

As Timah’s production cost is US$4,300/t of tin in-concentrate, net profit plunged by 89% from Rp331.6 billion in 2000 to Rp36.78 billion in 2001, with the company incurring cash deficits of over Rp50 billion/mth in the final months of 2001, Some 3,750 Timah workers were stood down for two months. If tin prices this year fail to recover sufficiently, the company could be forced to close all its dredging activities and lay off some 70% of its total workforce. To solve its financial troubles, PT Timah offered to merge with other state companies such as PT Aneka Tambang or PT Tambang Batubara Bukit Asam, but none of them was interested. Another option would be to sell its shares in affiliated companies such as PT Kutaraja Tembaga Raya (41.87%), PT Koba Tin (25%) and PT Asuransi Jiwa Mandiri (20%) or offer its fixed assets at Bangka Island and Jakarta for sale.

Finally, in early 2002, the central government, through the Ministry of Industry and Trade, issued a ruling banning tin-mining and export conducted by unlicensed operators.

Implementation of the ban has been delayed until mid-June 2002. Timah's production level in 2001 was 40,535 t tin-in-concentrate (of which part was purchased from those illegal miners), a slight increase on last year's figure of 40,051 t.

Timah's production from dredge operations dropped significantly, by 16% to 14,897 t from 17,751 t in 2000. The reason was that 12 high-cost dredges (out of the 21 dredges operated last year) were idled in order to cut overall production costs.

There was a total of 185 inland gravel-pump mining units owned by Timah's sub-contractors (down from 241 units in 2000) and they produced 25,638 t of tin in concentrates, an increase of 15%. This level was achieved as a consequence of Timah's policy to allow its inland contractors to purchase tin concentrate from the illegal miners. This is evident from the drop in total earth moved by the inland contractors which was only 62% of that moved in 2000. Tin metal production amounted to 38,081 t, 7.1% higher than last year's figure. Of this total, 34,550 t were produced by the Mentok smelter, the balance coming from toll smelting of PT Timah's concentrates by private smelters in Malaysia and Thailand.

PT Koba Tin fared reasonably well in 2001, despite some disturbances from illegal miners, who are reworking old tailings from former operations. Tin-mining operations were carried out by two inland dredges (of which one ceased operation in mid-year) and three gravel pump units. However, production of tin-in-concentrates shot up to a record 15,715 t, a 67% increase over the previous year's 9,395 t, as a result of purchasing concentrates from the illegal miners. Koba Tin's metal production at its own smelter was 9,658 t, while 5,735 t were toll smelted at Timah's Mentok smelter and by private smelters in Singapore and Malaysia because of Koba's limited smelting capacity.

In 2001, PT Timah and PT Koba Tin produced a total of 56,240 t of tin-in-concentrate, a 14% increase on 2000 and including material purchased from illegal miners. The two companies refined metal production, including toll smelting in neighbouring countries, amounted to 53,474.8 t.

Gold and Silver

Gold production in 2001 increased by 31% to 166.09 t, mainly as a result of the exploitation of extra gold-rich ore by PTFI at Tembagapura. The operations there yielded 109,128 kg of gold contained in the copper concentrate product. Silver output also increased, by 10.9%, to 348,332 kg.

Of the other gold and silver producers, PT Newmont Nusa Tenggara's Batu Hijau copper-mine on Sumbawa Island produced 16.06 t of gold and 49.64 t of silver in its copper-concentrates.

PT Kelian Equatorial Mining, (KEM) 90%-owned by Rio Tinto, and 10% by PT Harita Jaya Raya produced 14.1 t of gold, 34% more than in 2000 when road blockades set up by local people seeking higher land compensation payments disrupted operations. Silver output amounted to 10.5 t, slightly higher than the previous year. The situation in 2001 was much improved and the company is currently in the process of preparing for the planned mine closure in 2004. It has allocated a sum of US$44 million for rehabilitation work and training the workforce and local community members to make a living after the mine closure. PT Indomuro Kencana (a subsidiary of Aurora Gold) operates a mine in central Kalimantan but reserves are close to exhaustion and it only operated for nine months before closing the mine in October. Production in the first nine months amounted to 3.79 t of gold and a massive 80.63 t of silver.

PT Newmont Minahasa Raya operating in north Sulawesi and 80%-owned by Newmont, commenced gold production in 1996 but terminated mining operations in October 2001. Production will continue until the end of 2003, processing stockpiled ore. In 2001, it produced 11.13 t of gold, slightly less than the previous year of 11.39 t.

The Gosowong gold and silver mine of PT Nusa Halmahera Minerals, operating in Halmahera Tengah Regency (North-Moluccas Province), is a joint-venture between Aneka Tambang (17.5%) and Newcrest Singapore Holding Pty (82.5%). Gold output increased by 13.4% to 8.84 t, and silver production jumped to 10.94 t, an increase of 133% over the previous year. The mining operation at Gosowong will be short-lived because only 3.5 t of gold reserves remained at end 2001. The company has discoverd a small gold deposit in the neighbouring Toguraci area but it is located in a protected forest.

Aneka Tambang's Pongkor gold and silver mine in West Java produced 3.96 t of gold, 1.5% less than the previous year. Silver output rose by 2% to 28.07 t.

Bauxite and Iron Sand

Bauxite is produced at the Lomesa mine on the Island of Bintan in Riau Province by PT Minera Cipta Guna, a contracting company owned by Antam's pension fund foundation. The operation, which is nearing the end of its life, produced 1.37 Mt of ore in 2001, a 7% increase on the previous year. Exports of bauxite totalling 799,500 t went to customers in Japan including Nippon Light Metals Co. Ltd, Showa Denko KK Co. Ltd and Sumitomo Chemical Co. Ltd. A further 418,343 t were shipped to Shandong Aluminum Co. in China. The Lomesa deposit will be depleted in 2003 and in order to maintain exports to Japan and China, Antam is developing the Kendawangan bauxite deposit, which is located close to the coast in Ketapang Regency in West Kalimantan Province.

Production of iron-sand from the southern coastal areas of Java declined by 4% in 2001 to 469,377 t. This decrease was caused by the competition from copper-slag, a by-product of the copper smelter at Gresik, which can be used as a substitute for iron-sand in the manufacture of cement. The iron-sand concentrate product is sold to nearly all the cement factories in Indonesia on a contractual basis. Revenue from the sale of iron-sand concentrate benefited in 2001 as a result of a 37% price increase to Rp69,002/t.

Indonesian Production
('000 t except where stated)

	1999	2000	2001
Petroleum and cond. (Mbbl)	545.7	494	489.3
Natural Gas (trillion ft^3)	2.78	2.98	2.8
LNG (Mt)	29.8	27.32	24.35
LPG	2,271	2,087	2,187.7
Tin (in-concentrate)	47.8	49.4	56.25
Tin Metal	49.1	46.4	53.47
Coal	73,780	76,465	91,928
Bauxite	1,116	1,151	1,237
Iron sand	562	489	469.4
Nickel ore	3,235	3,039	3,619
Ferro-nickel (contained Ni)	9.2	10.1	10.3
Nickel-matte (contained Ni)	45.4	59.2	62.6
Copper concentrate	2,645	3,270	3,289.5
Cu in-concentrate	766.1	1,012	1,048.7
Cu metal	126.7	173.8	217.5
Gold (kg)	129,030	127,192	166,090
Silver (kg)	292,330	314,032	348,332
Granite	4,106	5,941	3,975