

## SODA ASH

*By Stephen Harriman  
Harriman Chemsult Ltd*

**A**fter a disappointing year in 2002, there was limited evidence of any progress in 2003 in the North American soda ash industry. The ongoing struggle with profitability at American Soda LLP was indicative of the problems facing producers. Indeed, the limited prospects encouraged Williams, the majority shareholder, to put its soda ash activities up for sale. American Soda's problems were seen to be a combination of overcapacity in the market place, together with technical difficulties with the solution mining process that required higher than projected consumption of natural gas and thus made the production costs uncompetitive. In September 2003, Solvay acquired the company. No financial details were released, but the companies acknowledged the price was considerably less than US\$50 million. The 1 Mt/y plant at Parachute, Colorado, had never achieved full capacity and had operated at between 50-60%. Therefore the long-term future of the plant was open to question in view of the excess capacity in the US.

Despite the relatively unfavourable domestic market conditions, US production of natural soda ash increased by 1% to 10.6 Mt. However, this was largely in the form of accumulated inventory, which grew by 108,000 t in 2003. The other major contribution to support the higher production was the increase in exports. These rose by 5.3% to 4.45 Mt in 2003. There were a number of important shifts in export volumes. The main markets to see increases were Western Europe, which more than doubled from 257,900 t to 543,200 t. The main destinations were the Benelux countries, which took 325,000 t and Spain 134,800 t. Another destination that saw increased shipments was South America. There were a number of markets that saw significant reductions in imports in 2003, with the largest reductions being to Canada, Japan and Mexico.

In the US, the rise in production was small in comparison with the increase in exports and inventory; therefore domestic offtake fell again. Apparent consumption of 6.03 Mt was down by 3.8% from 2002. Most end-use sectors experienced a reduction in soda ash demand. In part this was a reaction to the economy. The only end-use sectors to buck the trend were container glass, chemicals and pulp and paper. In the case of the latter two sectors, this was probably due to the competitive price of soda ash against caustic soda.

After a recovery in production of natural soda ash at both African plants in 2002, there was a slight downturn in 2003. Production levels at the Botash plant in Botswana eased by around 30,000 t to 250,000 t in 2003. Imports of soda ash into South Africa increased by 40% to 96,292 t. Indications from Kenya are that production was flat at the Magadi plant at 250,000 t. Production is forecast to increase in 2004 as the company has invested in

new dredging equipment. Looking further ahead, Magadi announced that it had secured a €23.5 million loan from the IFC to expand capacity. The company is looking to produce 365,000 t/y of pure soda ash, and will cover production of lower grade ash to 75,000 t/y over the next 10-15 years.

Studies have been undertaken to exploit the trona deposits at Lake Abijata and Lake Shalla in Ethiopia, with a view to building a 1.2 Mt/y soda ash plant. Subject to appropriate feasibility study results, a first stage 220,000 t/y plant is proposed.

The commercialisation of the trona deposits in Turkey continues to generate interest. In late 2003, Rio Tinto announced that it intended to commence a pilot-scale project in 2004 at its Kazan trona deposit. The proposals are that a three-year study be undertaken to assess the feasibility of solution mining. Subject to satisfactory results, a commercial operation of 900,000 t/y capacity is envisaged which could be expanded to 1.8 Mt/y. Construction of a 1 Mt/y soda ash plant at Beypazari has been slower than Eti Soda AS envisaged. The proposed start-up date is now in mid 2006, rather than by the end of 2004.

### **Synthetic**

West European soda ash producers came under pressure in 2003 from the increased supply of imports from the US. In addition, there were also negative developments in the regional economy. As a result, production is estimated to have fallen by 4% following the increase in 2002. There were no changes of ownership in 2003, though the year started with the transfer of control at Novacarb from Rhodia to Bain Capital at the end of 2002. Other developments on the plant side included Brunner Mond's ongoing investment in its Dutch and UK facilities.

There were few changes in production in Eastern Europe in 2003. Overall output of soda ash dipped by under 1%. There were small increases in Poland and Russia, with a minor reduction in Bulgaria, Romania and the Ukraine. Russia remains the largest producer in the region, with an output of 2.38 Mt. The small increase in 2003 was due to a drop in production at the country's largest producer, Soda Sterlitamak, by 30,000 t. Production in the Ukraine saw divergent developments, with Crimea Soda raising production by just over 6%, and Lisichansk reducing output by 38% due closure in the third quarter of 2003 following financial difficulties.

Privatisation continued in the former eastern bloc. Bega bought an 83.9% interest in Romanian soda ash producer, Sodici Govora Soda Ash Co, for €5.3 million. Bega now controls the entire Romanian soda ash production capacity as the group had earlier bought the other producer, UPS Ocna Mures. In December 2003, the Ukrainian Government privatised the larger of the two producers in the country, Crimea Soda. A local trading and financial group, Clearing House, acquired 89.5% of the state's holding for a reported sum of US\$65 million.

China became the world's largest soda ash manufacturer in 2003, overtaking the US. Production reached almost 11.02 Mt. This follows on from the impact of recent expansions. China looks set to increase its dominance further, with several new projects announced in 2003, including Zheijing Glass's 600,000 t/y project at Haixi and Shandong Haihua's expansion of 600,000 t/y. The Zheijing Glass project has subsequently been upgraded to a capacity of 1.8 Mt/y in two phases, with the first phase coming on stream by the end of 2005 and the timing of the second phase remaining unspecified. In total, there were announcements of an additional 2 Mt/y of capacity in China scheduled to start up in 2004.

As a result of the increase in supplies, there was a change in China's trade balance. Imports from the US increased only marginally to 299,000 t in 2003, compared with 291,000 t in 2002 and only some 67,000 t in the year before that. Chinese exports increased from 1.15 Mt to almost 1.26 Mt. The main demand driver continued to be the flat glass sector.

The run of negative developments continued in the Japanese industry. Production fell by less than 1% to 426,100 t in 2003 but shipments of domestic product increased by nearly 5% to 446,636 t. However, this was at the expense of imports, resulting in a drop in apparent consumption to 878,400 t, a decline of almost 3%.

The Indian soda ash industry recorded another year of increased production. Local supply rose by nearly 8% to a record level of 2.22 Mt. All six producers raised production, Tata increased production by one third to nearly 760,000 t in 2003. A major factor in this was a prolonged technical problem in 2002 that constrained output for almost half of the year. Tata was also in the news in 2003, following its merger with Hind Lever, the local detergent manufacturer. In late 2003, Tata embarked on a project to double its output of dense soda ash, which, on the conclusion of the work, will account for around 45% of the company's total production capability. Furthermore, Tata has indicated that it is studying plans to raise its capacity by 125,000 t/y to 1.0 Mt/y but no specific timing has been given for this as yet. Production of Indian soda ash is set to expand further. Nirma announced its intention to increase its capacity from 650,000 t/y to 850,000 t/y. The expansion is scheduled for completion by 2006. Following the increase in imports of Kenyan soda ash, local producers began to examine the prospects for the imposition of anti-dumping duties, though this was not formally pursued.

Work on the construction at the 100,000 t/y Kungrad project in Uzbekistan resumed in late 2003 after a delay due to steel shortages.

In late 2003, Kaveh Glass, one of Iran's largest glass manufacturers, announced the commissioning of a 220,000 t/y soda ash plant at Orumiyeh. Production will be mainly used internally, but up to 25 % will be available for the merchant market.

Soda ash production was in its final stages in the Republic of Korea. OCI confirmed its intention to close its 400,000 t/y soda plant at Incheon in the first quarter of 2004. The closure opens the way for more exports for Chinese soda ash to Korea.

The decline in production of soda ash in Brazil continued in 2003, falling to 161,000 t. However, owing to an increase in imports of 46,000 t, apparent consumption rose to 653,000 t, an increase of 6%.

### **The market place**

2003 was an eventful year for soda ash prices in North America. In late 2002, producers had announced increases of US\$7/short ton. However, this was quickly followed by a phase of intense competition between the soda ash producers aimed at increasing their respective market shares. The outcome was that there was wide-ranging movement of major accounts between the producers, with the result that any modest price increases that were passed through were balanced by price reductions at other accounts where the producers had to make concessions to hold on to their business. Thus there was little evidence of any generalised upward movement of pricing across the marketplace as a whole. As a result, ex-works prices remained between US\$65-70/short ton. During 2003, US producers saw their netbacks severely eroded on all fronts, both domestically and in export markets. They thus announced nominations for price increases ranging from US\$7 up to US\$15/short ton.

Although market conditions were not wholly favourable for an increase, European producers announced rises of €5/t for continental European customers and €8/t for Scandinavian and Central European accounts. The outcome was mixed; some buyers accepted increases of up to €5/t while others were able to avoid a rise or even obtain reductions. This was caused by roughly a doubling of the import volumes of competitively priced US soda ash that had been displaced from US accounts during the round of contract negotiations. As a result, there was relatively little movement overall. Prices ranged between €150-190/t delivered. Export business from Europe remained minimal.

Prices in the deep-sea export markets became increasingly competitive as the year progressed. Chinese exporters lowered their prices through the year from US\$118-120/t fob to around US\$100/t fob, largely as a result of pressure from inventories accumulated during the SARS epidemic. Increased export activity was also part of the strategy to enhance market share in Southeast Asia.

The rise in shipping freight rates over the year intensified pressures on sellers, especially those with long distance routes. This seriously disadvantaged the US exporters who were determined to retain their market share in key destinations. There was also evidence of intensifying competitive pressures in the Central and South American markets towards the end of 2003 in anticipation of the withdrawal of IMC (now Searles Valley Minerals)

from the US exporting consortium, Ansac. It was generally anticipated that IMC would focus its attention on the Latin American markets when its resignation became effective on December 31, 2003, hence competition for the renewal of contracts intensified.

**World soda ash production ('000 t)**

	<b>2002r</b>	<b>2003p</b>
Western Europe	6,135	5,900
Eastern Europe	5,416	5,376
North America	10,500	10,600
South America	409	391
Africa/Mid East	1,490	1,530
Asia/Oceania	13,518	14,383
<b>World</b>	<b>37,468</b>	<b>38,180</b>

r Revised p Provisional