

SODA ASH PRODUCTION & BENEFICIATION







OVERVIEW OF BOTSWANA

Botswana holds a strategic position within the Southern African Development Community (SADC), a region encompassing over 293 million individuals. With a strong foundation of good governance and an unwavering commitment to combating corruption, Botswana stands out as one of Africa's most stable and attractive economies for investors. While its economy has historically relied on abundant natural resources, particularly diamonds, the country has earned widespread acclaim as a success story in terms of its developmental progress on the continent.

Botswana has fostered a conducive environment for capital and business growth, aligning with its strategic objective of diversifying the economy into value-adding sectors that cater to the rapidly emerging regional market. Consequently, the country ranks as the fourth most competitive economy in Africa and is recognized as one of the continent's easiest destinations for conducting business.

Botswana: Quick Facts

Indicator	
Population	2.3 million
Area	581,730 km2
Capital	Gaborone
Business language	English
GDP/capita	US\$ 6,581 (2022)
Nominal GDP	US\$28.42 (2022)
GDP growth	5.8% (2022) 4.0% (2023) 5.1% (2024)
Change in inflation Rate	12.2% (2022)

Source: Statistics Botswana, 2023, Transparency International, 2023 & BITC

INVESTOR FACTSHEET: INVESTMENT OPPORTUNITIES IN THE COAL SECTOR



OVERVIEW OF THE BOTSWANA MINING SECTOR

Botswana's mining sector is among the highest in Africa, with a score of 59.6 out of 100 in BMI's Mining Risk/Reward Index in 2016. The country's high score is due to its favorable environment and strong regulation. The sector is led by the diamond industry, with other metals and minerals emerging. The attractiveness of Botswana's mining sector is evident in the presence of high-profile international operators, who benefit from the country's favorable investment climate.

THE GLOBAL SODA ASH MARKET AND BOTSWANA'S POSITIONING

Glass production accounts for 50% of global Soda Ash demand, with Northeast Asia, mainly China, accounting for almost half. In 2013, global Soda Ash demand reached 55 million metric tons. Flat glass industry has the highest demand at 25%, followed by container glass at 19%. Other sources include soap, detergents, chemicals, metals, mining, pulp, and paper.

THE SEVEN LARGEST PRODUCERS ACCOUNT FOR ALMOST 40% OF GLOBAL PRODUCTION

Botswana is a major Soda Ash producer and exporter in Africa, utilizing naturally occurring brine reserves. China is the world's largest soda ash producer, producing around 20 million tons annually. Other producers include the USA, Europe, Middle East, and some African countries. Botswana was the 12th largest exporter in 2013, following Kenya. The top exporters are the US, China, and Bulgaria.







THE BOTSWANA SODA ASH SECTOR

🝙 Botswana Soda Ash Industry Structure

The Botswana Ash (Pty) Ltd (BotAsh), the sole Soda Ash extractor, is a 50/50 partnership between Botswana's government and ChlorAlkali Holdings (CAH) Group. With a 300,000 tons capacity and over 280,000 tons produced annually, Botswana is one of the world's largest producers. Bulk Soda Ash is loaded at Sua Pan in Botswana and transported to Natalspruit depot in South Africa. Railway logistics are managed by two service providers, with Soda Ash trains offloaded into silos and either dispatched to customers using bulk road tankers or bagged at an on-site facility.

Botswana Soda Ash in the SADC Market

SADC offers an attractive export market for Botswana Soda Ash, with significant markets in Namibia and Zambia. South Africa imports a significant volume, with average prices above \$0.20/kg. Other SADC countries also offer competitive prices.

Botswana is the largest Soda Ash exporter to the SADC Region, exporting over 35,000 tons to other countries.





Botswana Soda Ash is primarily used in the glass industry, with 66% sold to major South African glass manufacturers Consol Glass, Nampak Wiegand, and PFG. An additional 20% is exported to Zimglass, a Zimbabwe-based beverage container manufacturer. Botswana Soda Ash is also used in chemical products like anti-caking agents and cleaning agents.



INVESTMENT OPPORTUNITIES IN THE SODA ASH SECTOR





- Consol Glass (RSA)
- NampakW eigan(RSA)
- PFG (RSA)
- ZimGlass (ZIM)
- Others



- Chemical Products
- Detergant Products
- **Other Uses**

Opportunity 1: Chromium Production

Iron and chromium are separated in a two-step roasting and leaching process, followed by heating chromite ore with calcium and sodium carbonate. Oxidized to hexavalent form, chromium is used in stainless steel, alloys, and car industry steel plating.

Opportunity 2: Chemicals – Applications

a. Sodium Dichromate uses include:

- Main ingredient of chromium chemicals,
- Water softener in laundering,
- Additive to swimming pools to raise the PH and neutralize effects of chlorine,
- Food additive (E500) acidity regulator, anti- caking agent and raising agent.
- Wetting agent, brick industry
- Tannery and fur industry for leather and fur tanning;
- Chemical industry for producing non-organic pigments, catalyzers and other chrome-containing elements;
- Textile industry for fabric pickling;
- Other industries in passive mixtures content, in anti-freeze liquid for engines, acetylene cleaning and chemical reagents

b Sodium Chromate uses include:

- Corrosion inhibitor in petroleum industry,
- Dyeing auxiliary in textile industry,
- Wood preservative,
- Red blood cell volume diagnostic.



c. Sodium Silicate uses include:

- i. Spray dried detergents
- ii. Soap manufacturing
- iii. Water treatment
- iv. Deflocculation of ceramic clays
- v. Foundry C02 and self set Process
- vi. Soil Consolidation
- vii. Tube Winding Adhesives
- viii. Welding Electrode Manufacture

Opportunity 3: Swimming Pool Care

Soda Ash is used in swimming pool water treatment to increase alkalinity, with minimal processing required. It is sold in packs of 500gr-4kg, offering potential investment opportunities.

- Establish operations near Sowa Town Production Plant to pack soda ash in consumer-ready packs for domestic and international markets.
- Establish operations near Botash's South Africa depot for consumer-ready pack sizes of soda ash.

Operational operations can be parallel with salt packing facilities in South Africa, with 170,000 pools (3 per 1000 inhabitants) and 100,000 in the rest of Southern Africa.

- Swimming pools open 6 months per annum
- 1kg of soda ash is required per swimming per month
- Price of consumer pack is USD 3.00 per kg

Opportunity 4: Potassium Chloride

Potassium chloride is a naturally occurring compound made up of potassium and chlorine, and its uses include:

- Agriculture fertilisers, animal feeds
- Food processing salt substitute

- Water softener Sodium chloride substitute
- "Three drug cocktail" one of the three active ingredients for lethal injections used in the USA
- Food supplement against a "Hypokalaemia"
- Industry
- Radiation monitoring equipment
- Common batteries
- To melt ice









Potassium Chloride – Applications

Agriculture:

Potassium fertilizers, such as potassium chloride (KCl), are widely used in agriculture to address plant deficiencies, also known as muriate of potash (MOP).

Animal feeds:

Potassium is crucial for pets and livestock to maintain proper physiological systems, especially during heavy training. It improves appetite, aids digestion, and maximizes feed efficiency, especially during stressful situations.

Medicine:

Potassium, a mineral essential for heartbeat, is found in various foods. Potassium chloride prevents or treats low potassium levels (hypokalemia) in blood.

Opportunity 5: Detergents/Cleaning products

Detergents production is a value-added business, with South Africa's 2015 exports valued at \$160 million, while soda ash serves as a base or carrier.

- Scouring powder
- Powder detergents

Prospective Customers for Detergents/Cleaning products:

- Gaborone Chemicals
- Clover Chemical Industries
- Africa-Chemicals
- Kgalagadi Soap Industries
- Unilever (need to meet quality parameters)

- Procter and Gamble
- Blendwell
- The Soap Factory
- Bliss Brands Chemicals
- Reckitt Benckiser
- Tiger Brands
- Britechem

Opportunity 6: Paper Mills and Pulp

Soda ash increases pulping pH, smoothing and swelling paper-fibres, facilitating grinding. It can also be used in Flue Gas Desulfurization (FGD) to remove sulphur dioxide (SO2) from fossil fuel power plants' exhaust flue gases. Research by Harvard and the University of Illinois shows that soda ash microcapsules can absorb carbon dioxide, providing potential for implementing this technology in Southern Africa.



INVESTMENT CLIMATE

Botswana has created an enabling environment for capital and business to strive and support its strategic focus to diversify the economy into value – adding sectors. As the fourth most competitive economy in Africa and the easiest African countries to do business with. The country has a peaceful democracy with an excellent investment climate. It enjoys good governance and a stable macro-economic environment.

BOTSWANA OFFERS MANY INCENTIVES FOR INVESTORS, INCLUDING:

- ♂ No restrictions on business ownership,
- 𝔅 Up to 100% Duty rebates on importation of machinery,
- ¿ Liberal tax regime: 22% corporate and 25% personal tax, with 15% corporate tax for manufacturing and
 IFSC-registered companies (lowest taxes in the SADC region),
- S Negotiable tax holiday up to 10 years maximum; and
- 𝔅 Deductible training rebate of 200%.
- Ø Provide up to 100% duty rebate for customs duties on imported raw materials for manufacturing under schedule 3 of the Customs Act.

INCENTIVES FOR IFSC ACCREDITED COMPANIES

- A competitive corporate tax incentive framework; 15% corporate tax,
- Exemption from Capital Gains Tax (CGT) and Withholding Tax (WHT),
- Access to a growing network of Double Taxation Avoidance (DTA) Treaties,
- No foreign exchange controls; and Denomination of share capital in any major convertible currency.

SPEDU REGION INCENTIVES

- 𝞯 5% Corporate Tax for the first 5 years, 10 % thereafter,
- Ø Duty rebates on imported raw material. Provide rebate of Customs duties and value,
- Added tax under schedule 4 Rebate item 470.03, and VAT Act Third Schedule – Item 470.03 for manufacturing done exclusively for export outside Common Customs Area (CCA), and
- ♂ Provide rebate for customs duties and

SPECIAL ECONOMIC ZONES INCENTIVES

- ${\mathfrak S}\,$ 5% corporate tax for the first 10 years then 10% corporate tax thereafter
- Duty rebates on imports of specialised plant and machinery for manufacturing purposes
- Waiver on transfer duty on land and property and Property Tax Exemption for 5 years
- ♂ Zero rated VAT on raw materials for manufacturing and export

Industrial Rebates

Industrial Rebates are specified under Schedule 3 of the Customs and Excise Tariff Schedule, and are granted to manufacturers who import raw materials from outside the SACU market for production of goods for domestic consumption. The Industrial Rebates offer a full or partial exemption of customs duty on the imported raw materials and are generally accessible to a wide range of industries such as Textiles, food, machinery etc. The customs duty liability on the raw materials ceases as soon as manufacture has been completed. In exceptional cases where goods manufactured under Industrial Rebate are disposed of within Botswana, VAT becomes due and payable: Botswana Unified Revenue Services



BOTSWANA INVESTMENT AND TRADE CENTRE

The organization plays a critical role of driving Botswana's economic growth through attraction of ForeignDirect Investment (FDI), domestic investment, facilitation of expansions and further spearheads the growth of exports by promoting locally manufactured goods to regional and international markets. BITC drives wealth creation for Batswana by creating platforms that will ensure increased citizen participation in the economy and create sustainable job opportunities.

Of great importance within the role of this organization is building and maintaining a positive and impressive image of our country locally and internationally. Through this encompassing mandate, BITC has committed to deliver on the following services, through the Botswana One Stop Service Centre housed at it's head office in Gaborone to ensure the ease of doing business for all investors:





INVESTOR FACTSHEE

CONTACT DETAILS

BITC is ready to facilitate your investment. For further information and inquiries related to Botswana and Soda Ash Production & Beneficiation Sector please contact:

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