

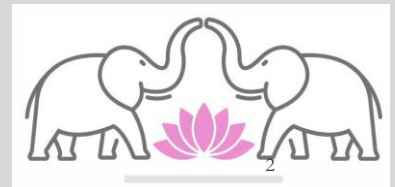


WHAT HAS CHANGED IN THE SODA ASH INDUSTRY

AMAI ALKALI INDUSTRY CONFERENCE 2026

Agenda

- **Introduction to the Hiranyavarnaam Group**
- **The Journey of Soda Ash**
 - 2010 – 2018: The Benign Years
 - 2018 – 2020: Environmental Controls & Capacity Tightening
 - 2020 – 2022: Pandemic Shock
 - 2022 – 2024: Structural Demand Acceleration
 - 2024–2025: Beginning of Capacity Expansion Cycle Begins & Markets Rebalancing
- **The China Story**
 - China: Policy & Push
 - China Remains the Production Anchor
- **The India Story**
 - Highlights
 - Domestic Supply and Import Dependence
 - Demand Drivers
 - Glass
- **USA and the Rest of the World**
 - Highlights
- **Lithium**



Introduction: HIRANYAVARNAAM GROUP

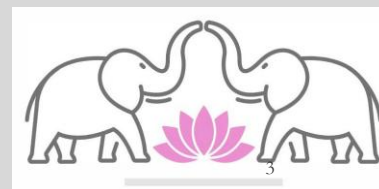
- Established in **2009**
- MD & CEO – Mr. Rajesh Shethia
- Head Office – **Singapore**
- Products – Caustic Soda [Lye, Flakes, Pearls], PVC, EDC, VCM, ECH, Aluminum Chloride, Poly Aluminum Chloride, Soda Ash, Thermal Coal
- **Fully Owned Subsidiaries**

Hiranyavarnaam Alkalis B.V. (Established in The Netherlands in 2019)

PT Hiranyavarnaam Alkalis Indonesia (Established in Indonesia in 2020)

Hiranyavarnaam Alkalis (Thailand) Co. Ltd (Established in Thailand in 2023)

- Group Turnover for F.Y.E. 2025 – USD 178 Million





JOURNEY OF SODA ASH

FROM 2010 TO 2025

2010–2018: The Benign Years

- Balanced markets – Demand / Supply of Soda Ash
- Stable Costs – Energy & Raw Materials
- Low Volatility Pricing
- Stability from USA – Consistent Supply, Steady prices, Stable Production & Logistics
- Regional Nuances



2018–2020: Environmental Controls & Capacity Tightening

- Slow ramp-up of Kazan, Türkiye's 2.5 MMT capacity
- Shutdown of old, high-cost and polluting synthetic capacities in China
- First signs of structural tightening



2020–2022: Pandemic Shock

- Lockdowns led to a big drop in demand as construction, automotive and the general economy slowed
- Supply-chain bottlenecks started to emerge
- Ciner leaves ANSAC



2022–2024: Structural Demand Acceleration

- Post-Pandemic Demand comes back with a bang
- Supply-chain bottlenecks choke up supplies
- China Solar Glass Capacity jumps from 16 MMT to 25 MMT
- Huge price squeeze and over-ordering; prices go up by 100% up to 200%
- TATA leaves ANSAC



2024–2025: Beginning of Capacity Expansion Cycle Begins & Markets Rebalancing

- Supply chain eases – customer warehouses overflow, delivery schedules get pushed back, prices start to get renegotiated.
- USA producers, now all independent, fight for market shares as against stability of ANSAC period
- Prices crash to unsustainable levels
- Weaker players shut down capacities; **which will intensify in 2026**
- EU struggles with high costs, capacity reductions & weaker demand
- WE Soda (Ciner) & Sisecam fully part ways, with Sisecam buying Ciner's balance shares

Capacity additions globally:

- WE Soda acquires Genesis Alkali & by default ANSAC making it the world's largest producer with assets in Türkiye & USA
- Solvay commissions 600k facility in USA; new shipping terminal for export at port of Vancouver, USA – 3 MMT capacity 2026 expansion
- TATA buys Humen soda bicarbonate plant in SG
- Announcements & Additions

CHINA	5 MMT	BERUN + OTHERS
USA	1.2 MMT	GENESIS ALKALIS
SAUDI	0.3 MMT	INO CHEM
PAKISTAN	0.22 MMT	SAPPHIRE
INDONESIA	0.3 MMT	





THE CHINA STORY

2026

China: Policy & Push

WHAT – China's 30.60 Decarbonization Goals

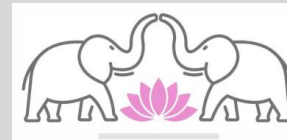
- Peak CO₂ emissions by 2030
- Decline from 2030
- Net-zero CO₂ emissions 2060.

HOW – 1 + N Framework

- 1 – Top Level Strategic commitment to reduce carbon intensity of GDP by moving from fossil fuels to renewables
- N – Action plan for key sectors like energy, industry, construction, etc.

IMPACT – For Soda Ash

- Restrict New Synthetic Soda Ash Capacity
- Restrict New Flat/Solar Glass Lines



China: Policy & Push

WHAT

- Solar PV

HOW

- **2009's** Aggressive Direct Financial Incentives Policy vs **2025's** Market-Driven Subsidy-Free Model
- **Grid Parity** - Solar PV projects must compete with coal-fired power prices **without subsidies**

THREAT

- Many countries impose tariff and restrictions on Chinese Origin Solar PV Modules slowing Chinese growth

IMPACT – For Soda Ash

- Growth in Solar Glass & PV Production globally (Non-China)
- BiFacial Technology will double the use of solar glass in every panel
- New Chinese Builds in ASEAN for Solar Glass & PV Modules to bypass tariffs



China Remains the Production Anchor

2025

- Chinese Production Capacity: 40 – 41 MMT
- Chinese Production: 38 – 39 MMT
- Chinese Consumption (Demand): 36 – 37 MMT
- Natural Soda Ash capacity growth is outpacing other synthetic capacity growth
- Chinese industry (users & producers) are carrying high inventory (Average 1.8 MMT)
- China exported its surplus of about 2 MMT

2026 & Beyond

- New Capacity Additions of about 5 MMT (2.8 MMT Natural Soda Ash – Berun + 2.3 MMT Synthetic)
- New Natural Soda Ash capacity in Inner Mongolia with a strict mandate to start up 5 MMT by 2028 (Distance to Tianjin Port – 700 KMs as against Berun which is 1600 KMs)

Rationalization

- About 4 to 5 MMT capacity will shut down in the next few years, mainly smaller capacity, older plants and older lines in big plants. Operating rates will also drop.



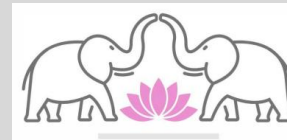
China Remains the Production Anchor

DEMAND

- China demand growth to remain stagnant in 2026, with modest 1–2% growth beyond 2026.

TAKE-AWAY

- Current Soda Ash prices are unsustainable with negative cash margins for all synthetic producers. This will drive capacity rationalization and either lower operating rates or increase prices.
- China will continue to be a net exporter to balance domestic supply surplus. Chinese exports will be spot and volatile to supplement domestic imbalances, month to month.
- Average exports will be 4 to 5% of production annually



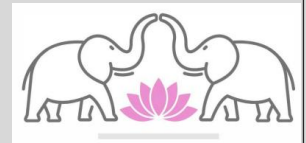


THE INDIA STORY

2026

Highlights

- Indian GDP continues to grow faster than all Global Economies and is on its way to become the 3rd largest economy in the world.
- This growth increases demand for glass, silicate, detergent & chemicals which use Soda Ash
- ADD announced by DGTR but Government of India did not implement it (USD 17 to USD 88 Per MT)
- MIP announced for 2025 from January to June. Extended up to December 31, 2025. (INR 20,108 per MT)
- Fresh application made for MIP in 2026



Domestic Supply & Import Dependence

2026

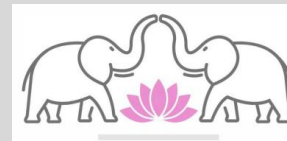
- Production Capacity 4.6 to 4.7 MMT
- Effective Capacity 85 to 90% of installed capacity
- Able to convert 50% of production capacity to Dense Soda Ash & 500 KT to Sodium Bicarbonate

IMPORT

- India has a deficit as demand exceeds production. Production in 2025 is about 3.9 MMT and demand stands at about 4.7 MMT
- Average imports around 1 MMT during last 3 years
- After allowance for export to nearby countries from India, Indian industry was holding an average inventory of 2,50,000 MT in 2025
- Composition of Soda Ash imports moves from Light Soda Ash to Dense Soda Ash over last 5 years
- Current import is 85% Dense Soda Ash

EXPANSIONS

- Tata Chemicals Limited adds 350 KT Dense Soda Ash
- RSPL SOKA is adding 250 KT Soda Ash
- GHCL has approval for 1.1 MMT (new build)



Demand Drivers

2026

- Indian demand for Soda Ash will grow at an average of 5 to 6% p.a. in the next few years.
- Not all sectors will grow at the same rate
- F.Y. 26-27 demand forecast is 4.9 MMT

SECTORS

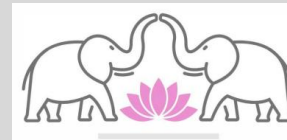
◦ GLASS

- Flat Glass – Architectural, Automotive & Others
- Container Glass – Beverages, Food, Pharma, Perfumery, Cosmetics
- Solar Glass

◦ **DETERGENTS** – 2 to 3% p.a. growth challenged by Liquid Detergent growing at 7 to 8%

◦ **SILICATE** – Growing at 4 to 5% with Precipitate Silica supporting the growth

◦ **CHEMICALS** – Growing at 3 to 4 % - Swing Demand in some sectors where Soda Ash can replace Caustic Soda and vice versa



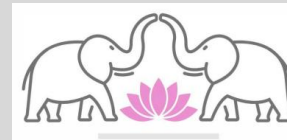
Glass

FLAT GLASS

- Flat Glass demand is growing by 6-7 % pa
- Large capacity addition came online in 2023-2025
- Per capita consumption remains low at 2.5 KG
- India still imports 29% of its demand for Flat Glass from ASEAN (But largely controlled by Chinese Producers)
- Scope for further capacity addition

CONTAINER GLASS

- Container Glass demand is growing by 5-6 % pa
- India exports 12% of its container glass production largely for Alcoholic Beverages, Perfumes, Cosmetics
- Challenge from PET/ Plastic bottles / Aluminum cans in to Alcoholic Beverage sector
- Courts settle Hindustan National Glass revival in favor of Madhvani Group



Glass

SOLAR GLASS

- GOIs Renewable Energy Push – (60% share in renewable and will move to 70% in next few years)

Massive policy intervention & financial incentives

- PLI Scheme
- Rooftop & Agricultural Pump Sectors
- Solar Parks
- Implementation of ALMM (Approved List of Model & Module Manufacturers)

Impact of Policy

- Installed Solar Power – 132 GW by the end of 2025 (3rd Largest Globally)
- Average Addition of at least 50 GW every year going forward
- More than 70% of additions will come from Indian PV Module Manufacturers under ALMM
- India Exporting PV Modules as China fights global tariffs
- Current Soda Ash consumption in Solar Glass is 250 KTPA. Additional demand in 2026 will be 210 KTPA.





USA & THE REST OF WORLD

2026

Highlights

USA

- Largest Exporter in the world at approx. 6 to 7 MMT per annum
- One of the lowest cost producers
- Only Natural Dense Soda Ash
- Local Demand – Flat to Negative
- Supply Chain Challenges

TURKIYE

- Production capacity approx. 6 MMT (4.5 MMT Natural Dense Soda Ash)
- 2nd Largest Exporter in the world largely to EU, North Africa & Latin America

GLOBAL DEMAND – 72 MMT growing at about 2% p.a.





LITHIUM

2026

- Lithium Carbonate Processing is creating new demand
- LATAM – Largest Lithium Brine availability
- Uses Soda Ash to convert Lithium Chloride to Lithium Carbonate
- Big Jump in Lithium prices in 2026 making unviable projects viable driving new Soda Ash Demand
- Growth in Alternative Energy & Battery Ecosystem needs Lithium
- Currently, 4% of Global Soda Ash demand comes from Lithium Carbonate
- Potential to add 1 MMT of Soda Ash Consumption in coming years





THANK YOU

Mr. Rajesh Shethia

E: rajesh.shethia@hiranyavarnaamalkalis.com

W: www.hiranyavarnaamalkalis.com