



Indian Outlook: Glass

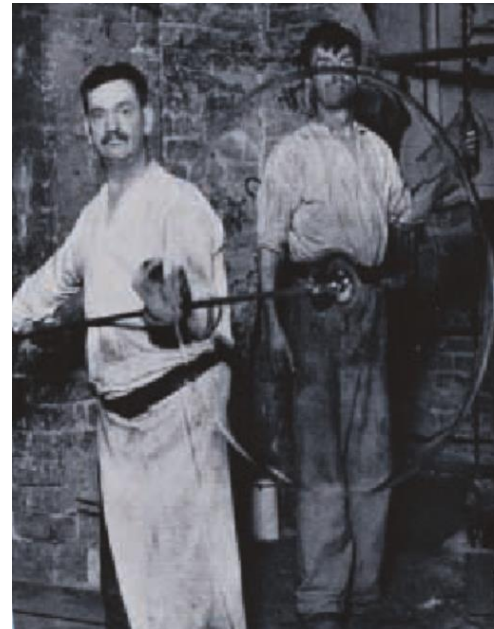
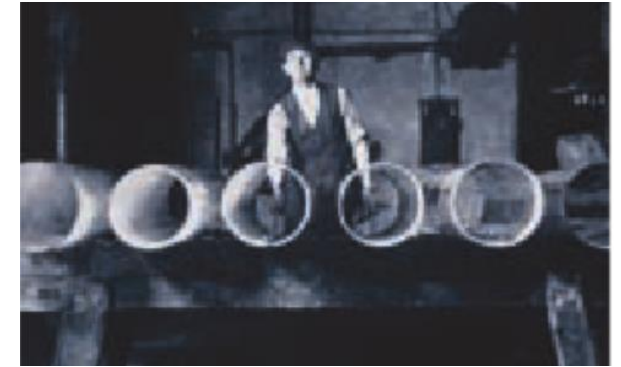
(By Bharat Somany, President – AIGMF)



- It is said that Glass was discovered by the Syrians 5000-7000 years ago, reaching Egypt around 2000 BCE and then to Rome, from where it spread across Europe and the world.
- Historically, Firozabad is popularly known as the “Glass City of India”, where production of glass started back in the 17th Century.
- It remained a cottage industry till the early 20th century.
- The first glass plant was set up in August 1908 by Lokmanaya Balgangadhar Tilak at Talegaon, Maharashtra.
- There has been steady progress since independence in 1947.



The old cylinder process



History of Glass in India

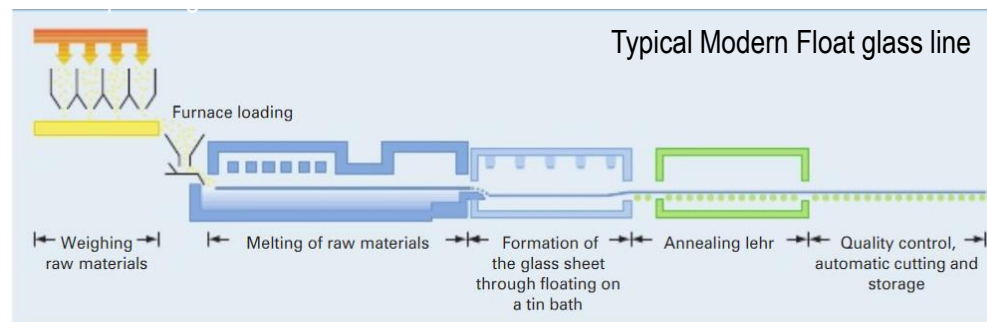
- HNG (1946), AGI (1972), Piramal Glass (1984), Asahi (1987) and Saint Gobain (2000) started their glass operations.
- The flat glass industry continued adopting new technologies over time... Fourcault Process > Colburn-Libbey–Owens Process > Pittsburg Process
- A Quantum leap came in 1958, when Pilkington launched their innovative Float Glass process where Molten Glass is made to float on a shallow bath of molten tin to form a continuous ribbon with exceptional surface finish and minimal distortion.
- The container glass industry has moved from mouth blown and hand working processes, to fully automated processes of *Blow & Blow* , *Press & Blow* and *Narrow Neck Press & Blow*.
- The manufacture of glass bangles and beads has moved to a semi automatic process and India has developed indigenous technology in these sector.
- Modern technologies common to the whole world are now used in the production of containers & float-glass.



Fourcault Process



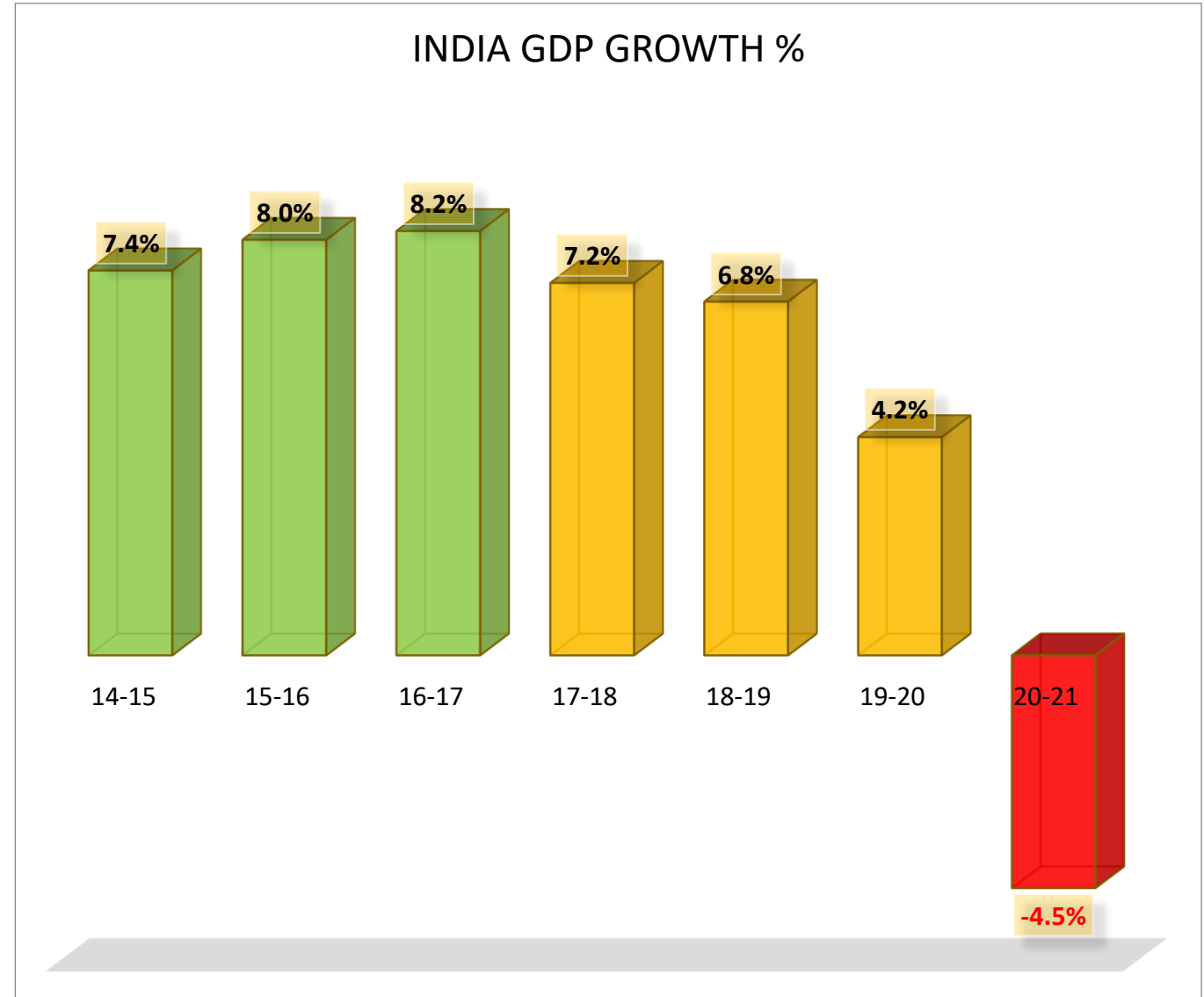
Pilkington float glass Process



1. Indian GDP was growing at ~8% CAGR till 2016
2. The government aimed for a USD 5 Trillion Economy by 2024, but this has been hit by the COVID-19 Pandemic.
3. The economy is expected to contract by 4.5% for the year 2020-21 owing to lockdowns to contain the spread of COVID-19.
4. India expects a V-Shaped Recovery in the year 2021.
5. The intent of the govt. is to boost local manufacturing which will provide growth stimuli to the economy.
6. The Govt. has introduced many reforms to boost manufacturing in India and become self reliant and less dependent on Imports of final product.

Financial Growth Prospects

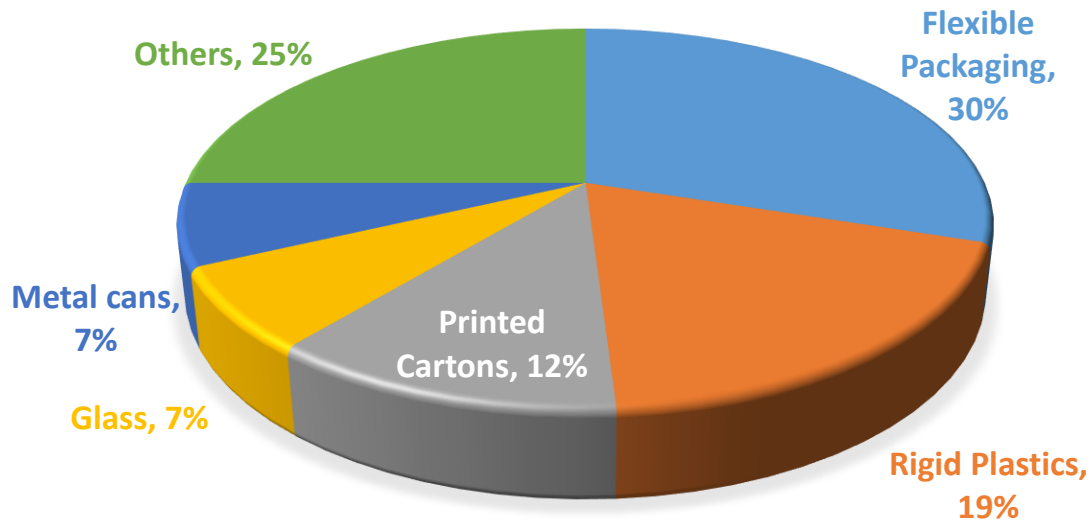
1. **Positive and Stable Govt.**
2. **Positive Intent of Govt. to grow Industry.**
3. **Global Investors are keen to invest in India.**
4. **Local Demand Poised to grow as detailed in the slides to follow.**
5. **Large Investments in “Make in India” & “Atmanirbhar Bharat” missions.**



Market Overview

- At USD 15 bn, Indian packaging industry has been growing at ~ 15% over the last few years
- Indian glass container market is estimated to be around USD 1.1 Bn.

Indian Packaging Market



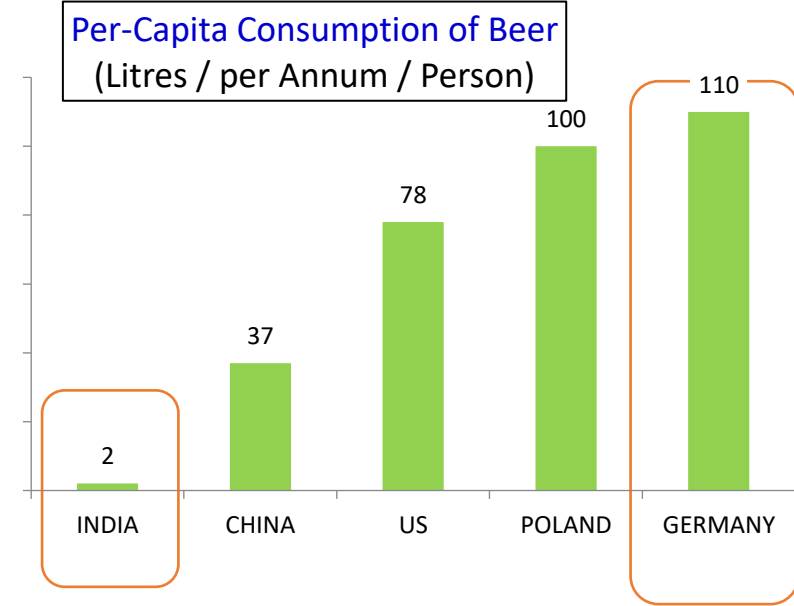
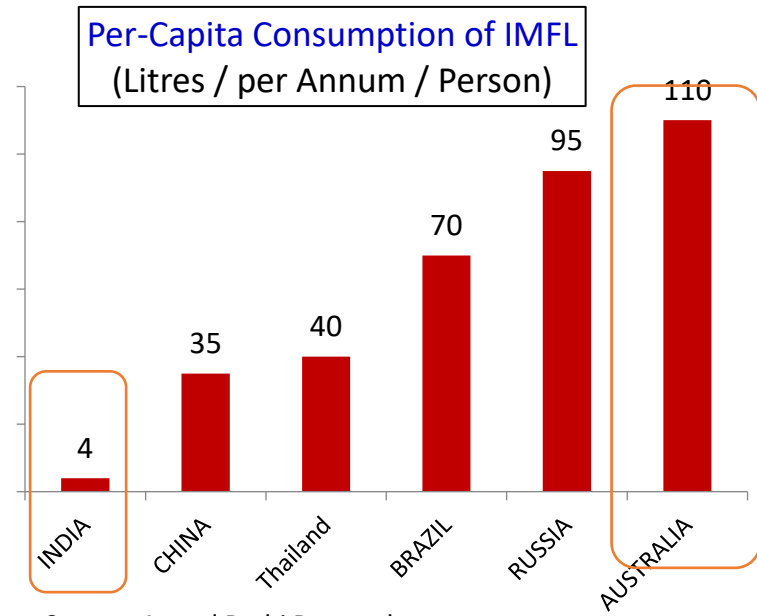
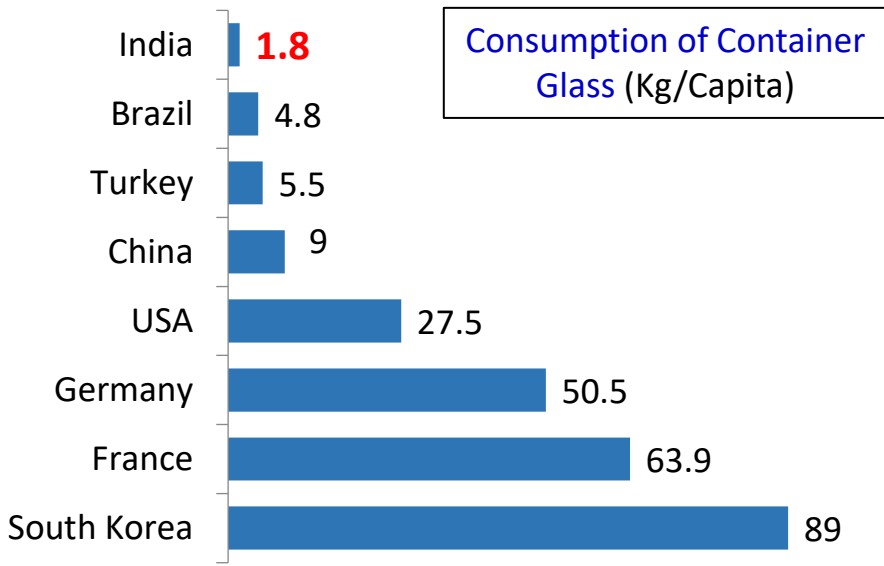
Global Glass packaging market

- ❑ Current market size is ~ USD 52 Bn & posed to grow at 4% during next 5 years.
- ❑ In 2016, with a market share of over 36%, EMEA (Europe, Middle East and Africa) emerged as the market leader in the global RGP market, followed by APAC (Asia Pacific) with over 34% and the Americas with close to 30%.
- ❑ Rising disposable income, changing lifestyles, and westernization are some of the factors driving the alcoholic beverage packaging market in APAC.

Huge potential for glass industry to grow in India and Exports

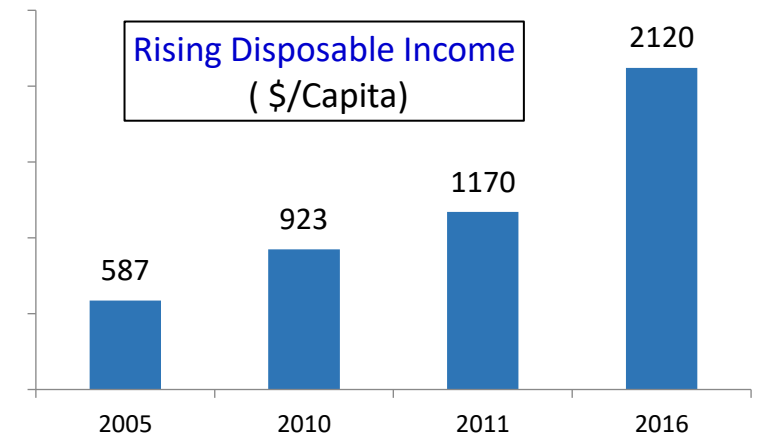
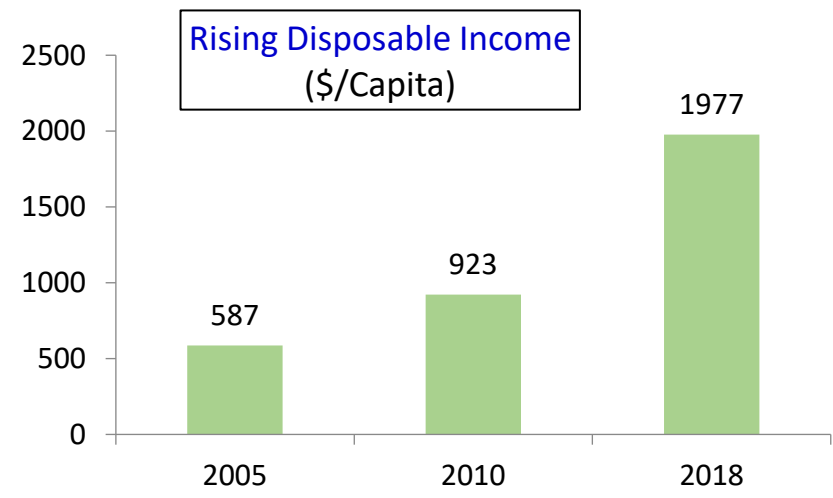


Macro Fundamentals are Strong



Source: Anand Rathi Research

Source: Beeronomics



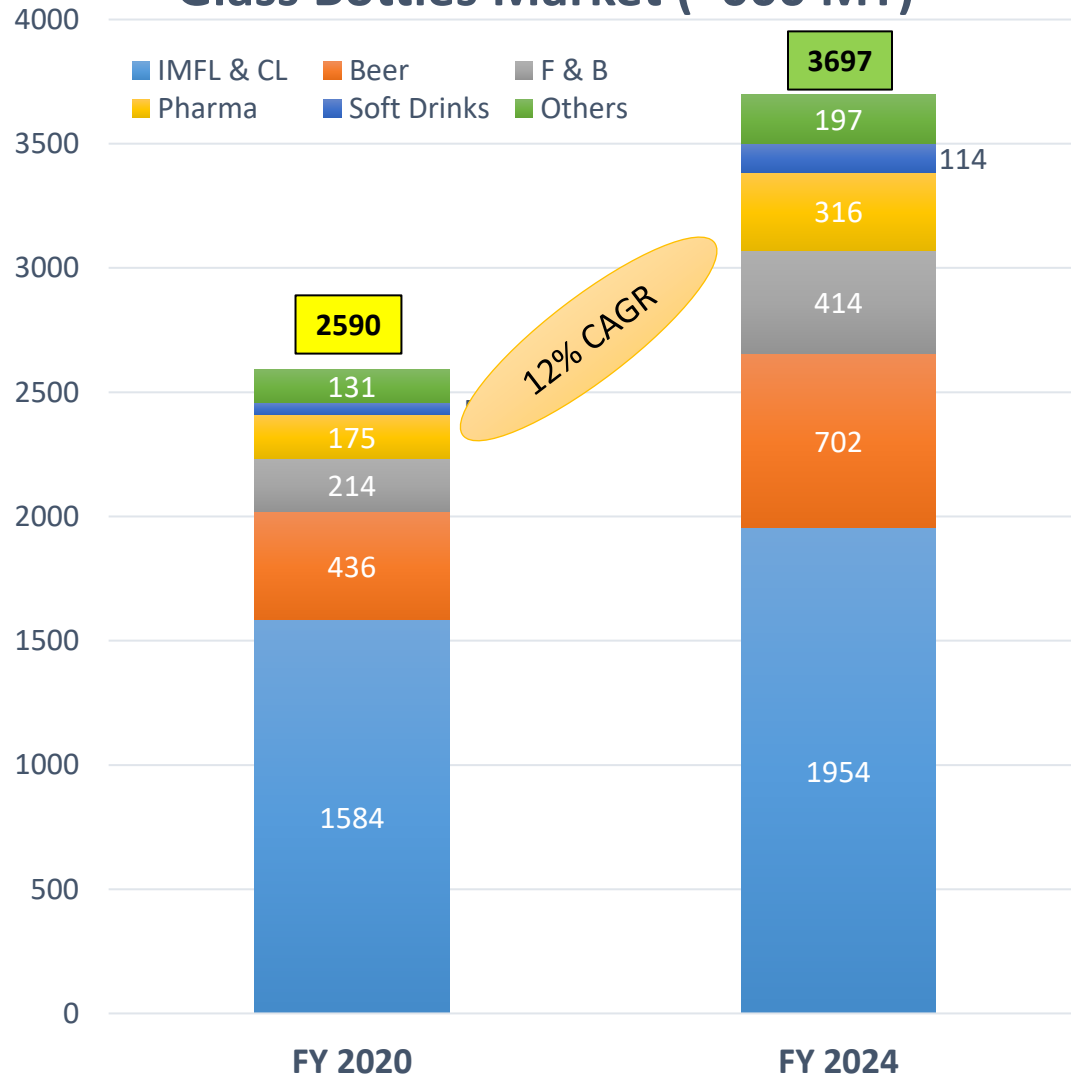
Source: Economist Intelligence Unit

- ❖ Alco-Bev segment Per capita Consumption is very low compared to other countries.
- ❖ Increasing urbanisation, high disposable income and changing social ethos will boost growth opportunity end user segment.
- ❖ Increased awareness of public about health & hygiene aspects-Glass-Eco-friendly.
- ❖ A Reverse Migration in Pharma has begun.

Glass Containers - Segmental Demand & Projections

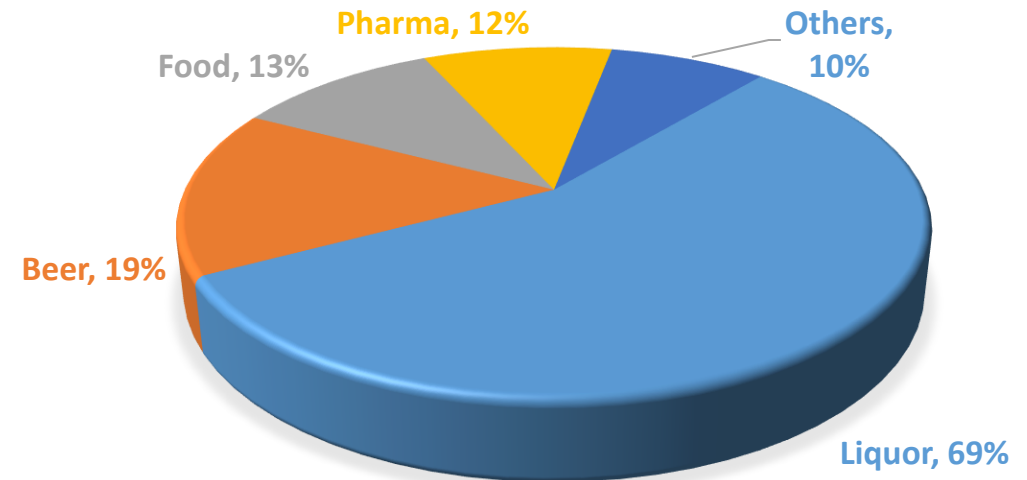


Glass Bottles Market ('000 MT)

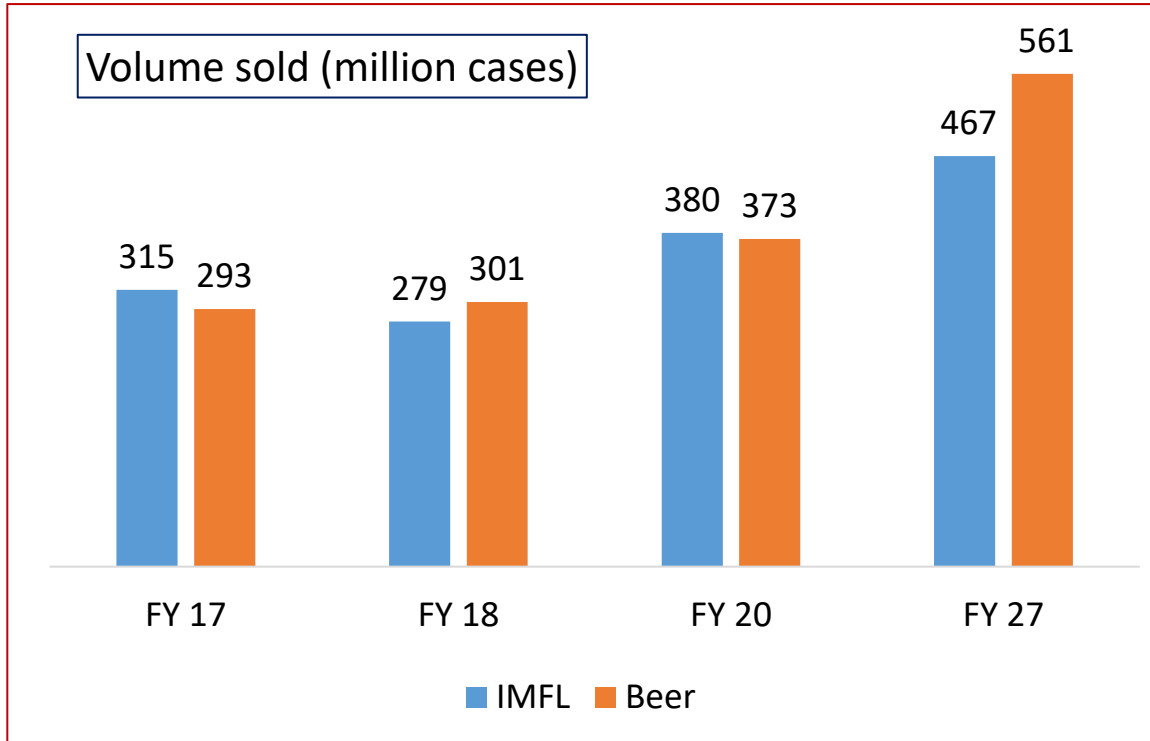


- ❖ Alcobev industry is expected to grow at a very fast pace with increase in the Purchasing power of the economy
- ❖ The growth in Pharmaceutical Segment is expected as the movement towards glass from alternate packaging is expected with change in consumer demand
- ❖ Packed food segment is driving growth with emerging market of speciality sauce, dressings, olive oil. This segment is expected to grow the fastest with the change in consumer perception towards alternate packaging.

Container Glass % Usage in End user Segment



Alcobev



“The worst is behind us. We think this is a good time for ABD to focus on premium businesses and overseas expansion,” says ABD executive director Jeetendra Hemdev.

Positive Signs

19 Mn new consumers enter the legal drinking age every year.

1 Billion consumers by 2027.

55 % consumption of alcohol increase between 1992 & 2012.

10 % CAGR growth rate for Beer market for next 5 years.

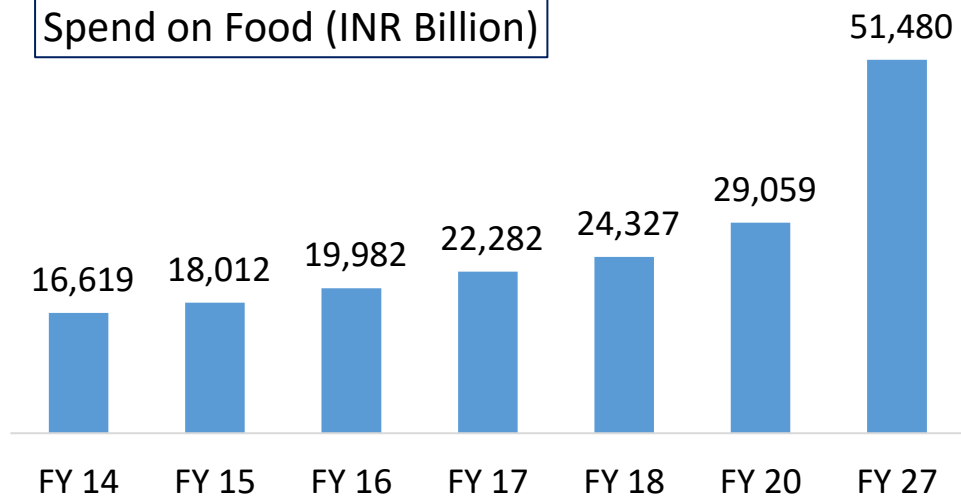
48 % of global Whiskey market in India.

From Rs. 2,80,724 Cr. in 2018, the Indian Alcohol market is expected to reach 5,48,285 by 2027 with an average CAGR of 7.8%



Food

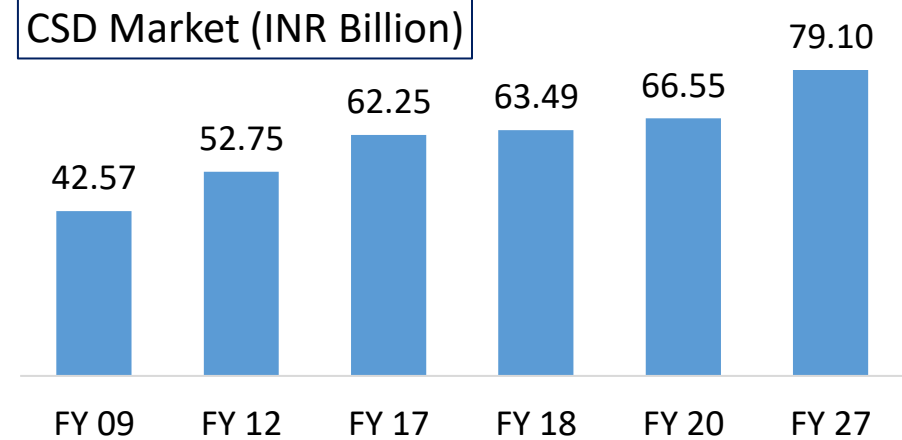
Spend on Food (INR Billion)



- ❖ Spending on food is expected to grow at 10% CAGR with evolving consumer preferences, rising income & growing rural opportunity.
- ❖ Value added dairy market has grown at 16% CAGR in FY 12-17 to Rs. 74,481 Cr.
- ❖ Share of glass packaging in food segment is ~ 10% and in dairy is ~15% and is not expected to change significantly in future, though it is the most preferred choice for premium milk shakes, yogurts and flavoured milk.

Soft Drinks

CSD Market (INR Billion)

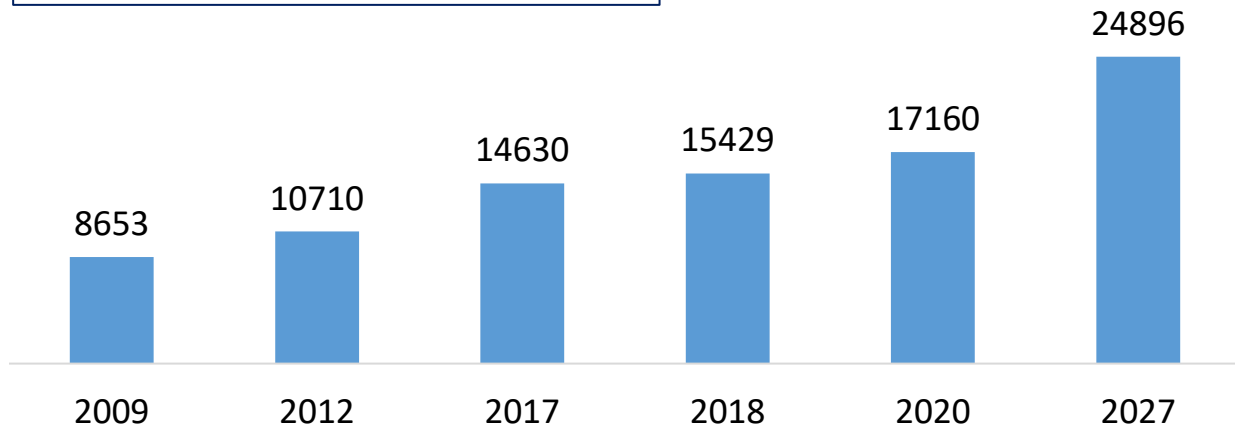


- ❖ Carbonated Soft Drink (CSD) market is experiencing slowdown driven by availability of healthier alternatives and high tax of 40%. From 48% in FY 11, CSD share of overall soft drinks market has fallen to 35% in FY 17.
- ❖ With growing cost pressure and ease of use, Coca Cola and Pepsi are shifting their containers from glass bottles to PET bottles. Share of glass packaging has fallen from 34% in FY 09 to 22% at present.



Pharmaceuticals

Pharma Packaging Market (INR Cr.)



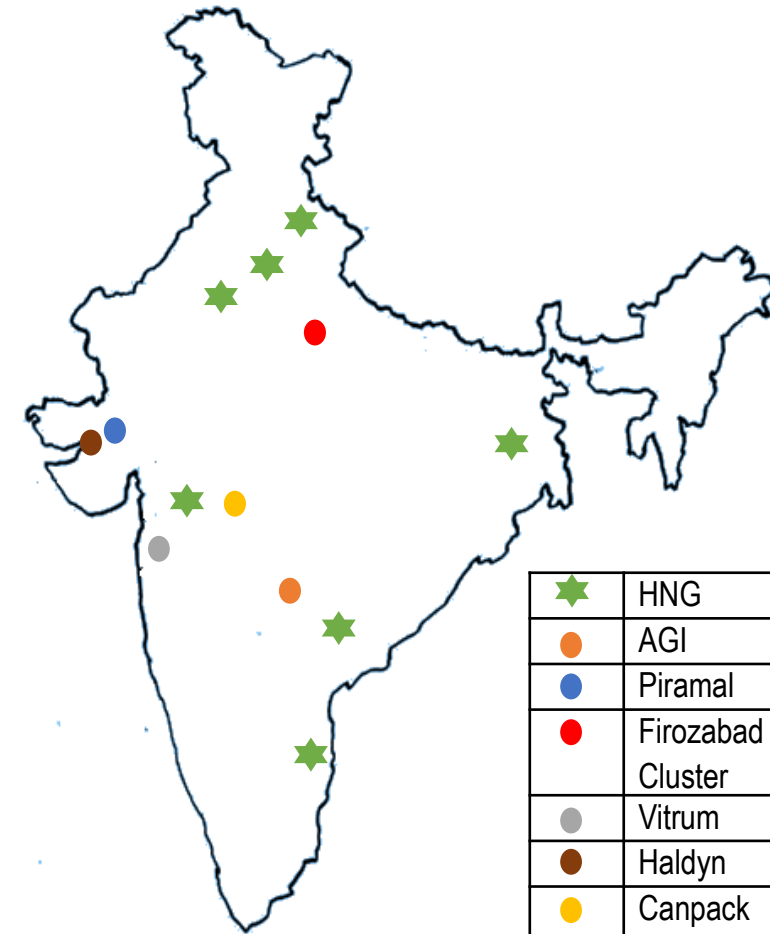
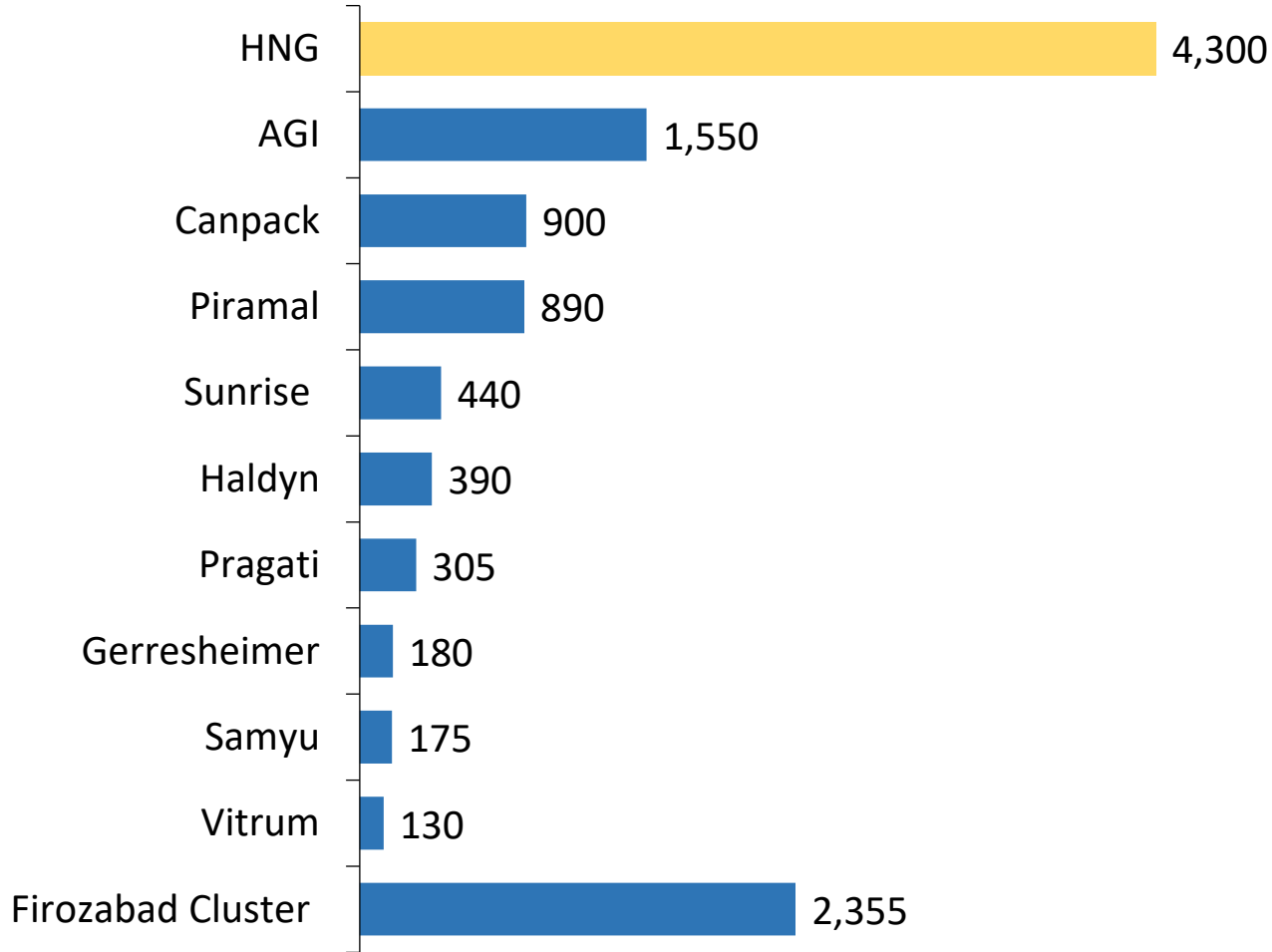
- ❖ Indian pharmaceutical sector is estimated to account for 3.1 – 3.6% of the global pharmaceutical industry in value terms and 10 % in volume terms. It is expected to grow to US\$100 billion by 2025. India's cost of production is significantly lower than that of the US and close to half of that of Europe.
- ❖ The India pharmaceutical packaging market was estimated at USD 2.107 billion in 2017. This market is expected to reach USD 3.57 billion by the end of 2023, at a CAGR of 9.2%. Share of glass packaging in liquid formulations is high due to safety and longevity factors.

Cosmetics

- ❖ The country's cosmetics and cosmeceutical market is expected to register annual growth of 25 % touching USD 20 billion by 2025 from present USD 6.5 billion from a global market of USD 274 billion.
- ❖ Body care is the largest category and growing at about 4 % CAGR while colour cosmetics was the fastest growing category, at 12 %. The premium segment is expected to grow at 6.3 % per annum.



Supply - Container Glass Installed capacity

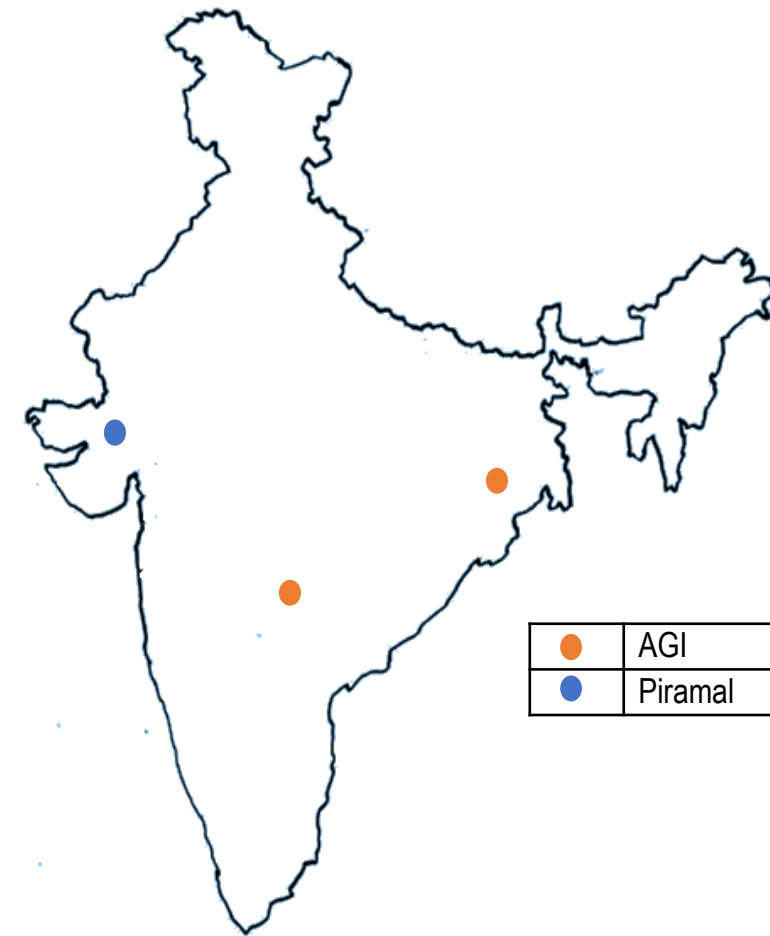
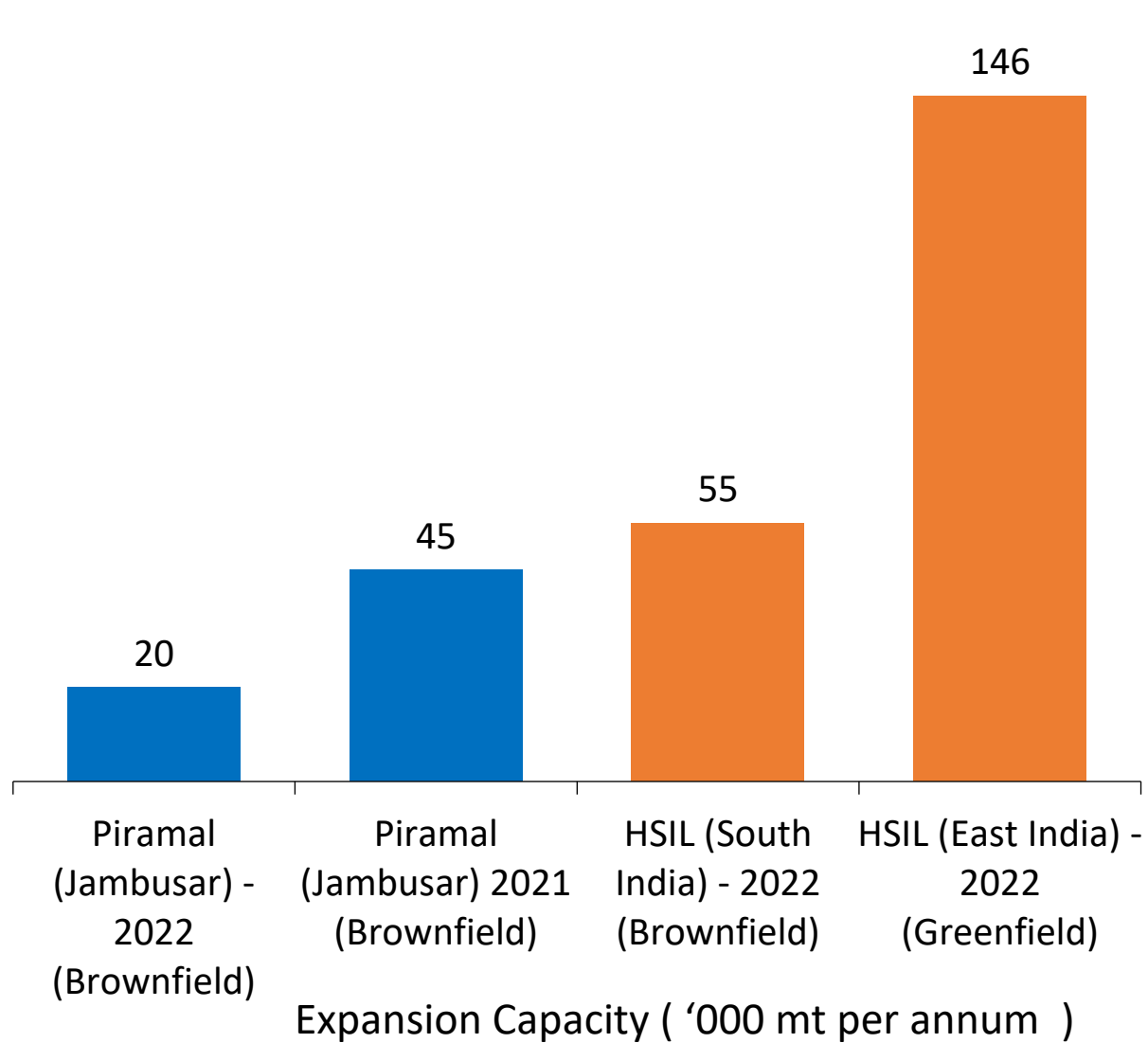


Plant Locations

Installed Capacity (Tons per Day): 11615 TPD



Container Glass - Future Expansion Plans (Announced)



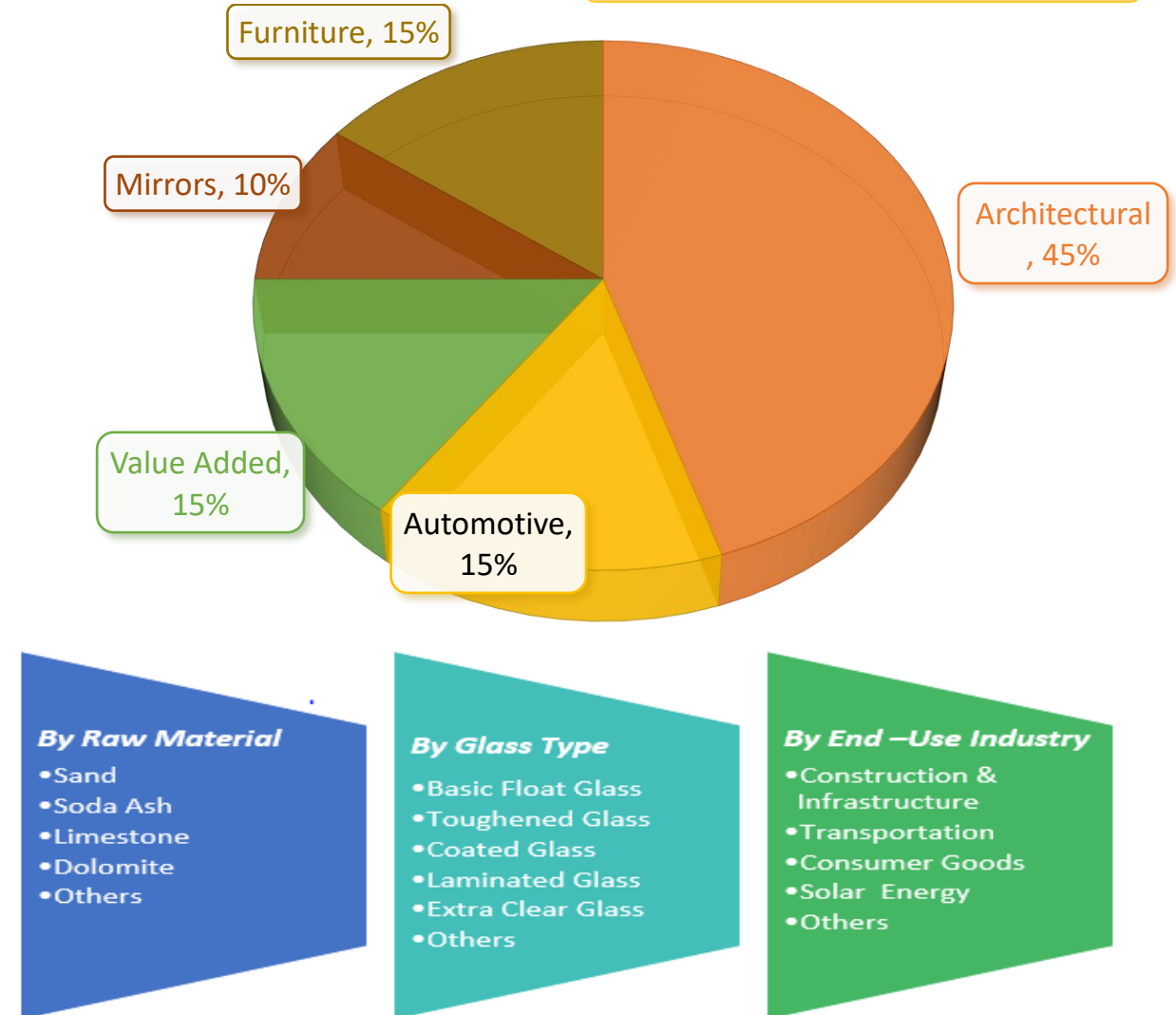
Plant Locations



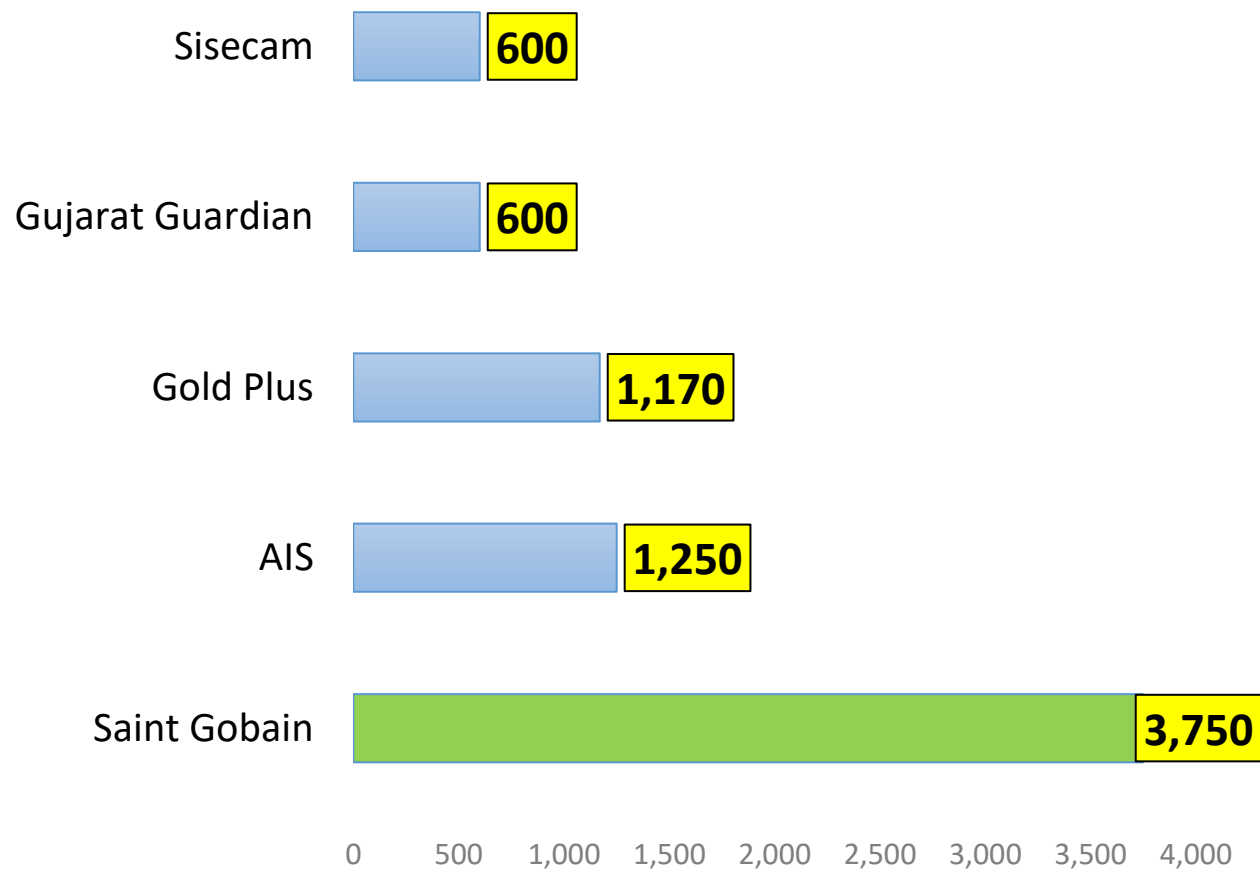
Market Overview

- Global market for flat glass is approximately 62 million Tons (208 thousand TPD).
- Flat glass market is growing at 6% per annum globally. India contributes ~0.19 % of Global flat glass production.
- Total size of Flat Glass industry in India is 110 thousand Tons per Month.
- Per Capita consumption of Flat glass in India is 0.7 Kg whereas developed countries per Capita flat glass consumption are very high ranging between 8 to 10 Kg.
- Clear glass import per month is ~15,000 MT and total import including colored glasses is ~35,000 MT.

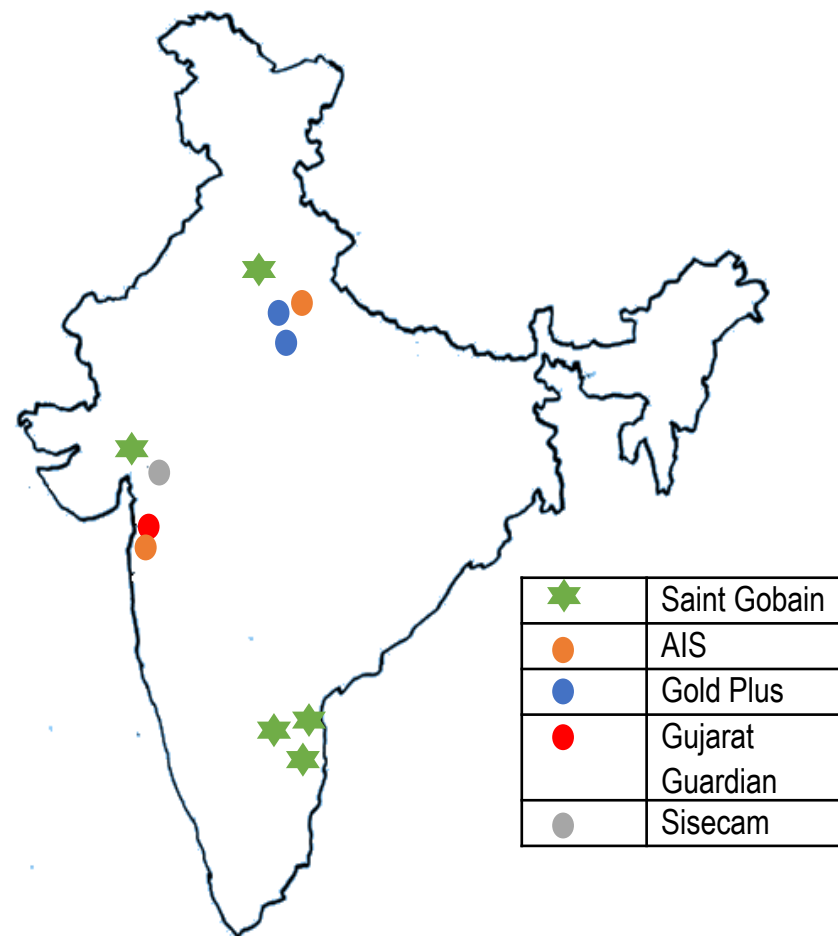
Indian Float Glass Market



Supply - Float glass Installed capacity



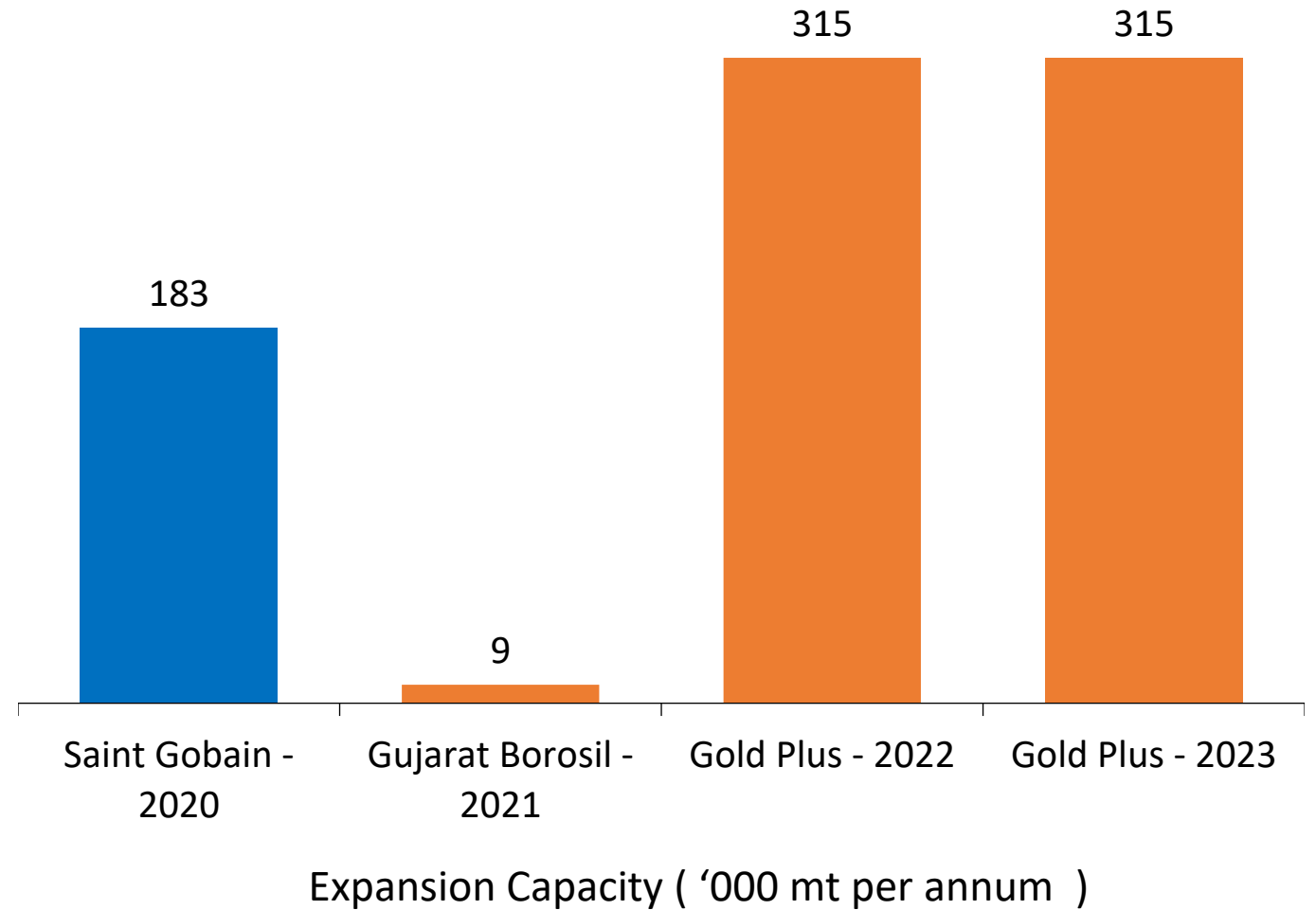
Installed Capacity (Tons per Day): 7370 TPD



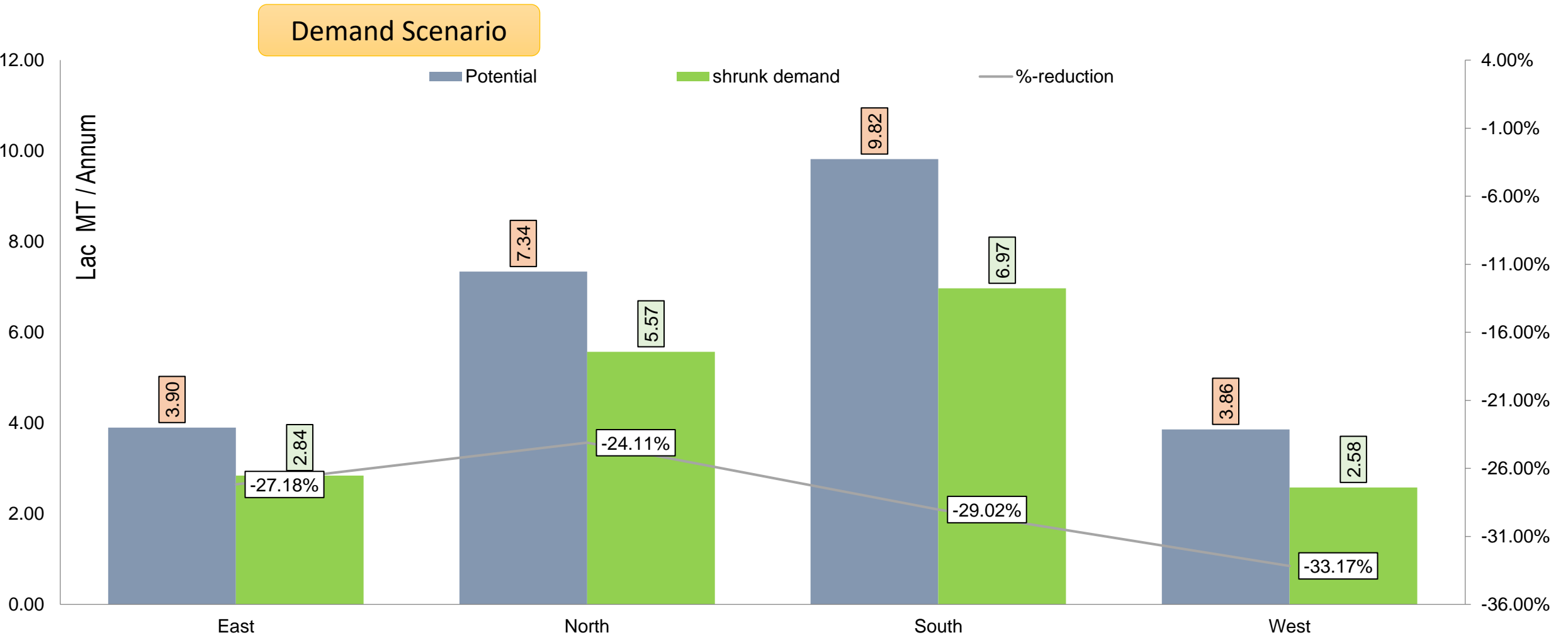
Plant Locations



With Restrictions on Imports of finished product – There is Huge Potential in the Indian Float Glass Market for Expansion



Covid-19 Impact on Container Glass Market



The present demand scenario for India is highlighted above showcasing the reduction in demand for glass bottles in India for the FY 20-21.



SHRUNKEN BEER DEMAND

- All major producers are operating at reduced capacity (single shift operation).
- Producers expecting a drop of approx. 20-25 % in their sales.
- Annual output is pegged at 60-65% of capacity through this fiscal ending 31st March 2021.

REDUCED LIQUOR CONSUMPTION

- All major producers are forecasted to run at reduced capacity
- Reduced household income pulling down demand
- Expected reduction in the consumption of liquor is pegged at 20%

POOR FINANCIAL HEALTH OF CORPORATES

- Low capacity utilization and reduced scale of operations is impacting the entire supply chain.
- Their initial focus is to maximize the reuse of old glass bottles.



Changing Market Dynamics – Food & Pharma Prospects

Pharma sector is expected to have healthy growth post covid

Health awareness and consumer pull for organic foods shall push growth in the food segment.

Govt. focused on development of the “Nutraceuticals” segment .

Processed food segment is set to see double digit growth.

Life savings drugs remain in high in demand.



FUTURE PLANS FOR BUSINESS CONTINUITY

- COVID-19 has changed the market dynamics, people are more cautious and choosing better packaging.
- There is a push towards private transport vis-à-vis Public transport which shall increase the demand of Automotive Glass (Float Glass).
- The Industry expects a second round of Stimulus to be provided by the government to boost manufacturing for the industry and boost demand.
- The Industry expects a V Shaped recovery in 2021.





THANK YOU

A decorative flourish consisting of three curved lines meeting at a central point, forming a stylized floral or scrollwork design.