India scenario
For FY14, Chemical industry's current turnover was about USD 144 billion which constituted 2.11% of the national GDP

- Indian chemical industry ranks 3rd largest in Asia and 6th in the world by output
- Total production in the Indian chemical industry was 9,627 MT in FY14, a 2 per cent rise over FY13
- With 68 per cent of the total production share, alkali chemicals form the largest segment in the Indian chemical industry
- India’s growing per capita consumption and demand for agriculture-related chemicals offers huge scope of growth for the sector in the future
- In India, consumption of petrochemical products is still one of the lowest in the world; hence there is a huge untapped potential in this sector

**Production share of major chemicals**

**FY15**

- Alkali Chemicals: 68%
- Inorganic Chemicals: 17%
- Organic Chemicals: 9%
- Pesticides: 3%
- Dyes & Dyestuffs: 2%

**Production of major chemicals (000'MT)**

- 2008-09: 7423
- 2009-10: 7651
- 2010-11: 9107
- 2011-12: 9395
- 2012-13: 9440
- 2013-14: 9627

Source: Department of Chemicals & Petrochemicals, Govt. of India
Segments & characteristics of India’s chemicals sector

Key segments of India Chemical Industry

**Base chemicals**
Petrochemicals, man-made fibres, industrial gases, fertilizers, chlor-alkali and other organic and inorganic chemicals

**Specialty chemicals**
Dyes and pigments, leather chemicals, construction chemicals, personal care and other specialty chemicals

**Pharmaceuticals**
Active Pharmaceutical Ingredients (APIs) and formulations

**Agrochemicals**
Insecticides, herbicides, fungicides and other crop protection chemicals

**Biotechnology**
Bio-pharma, bio-agri and bio-industrial products

Characteristics of India Chemical Industry

- High domestic demand potential
- Focus on new segments such as specialty and knowledge chemicals
- Gujarat and Maharashtra have emerged as most favored zones
- Fragmented industry
- Increase in focus on R&D

Source: KPMG, TSMG
Exports have been rising over the year but still India is a net importer of chemicals

- **Total exports** of chemicals grew from USD 6.3 billion in FY06 to **USD 12.7 billion in FY15**
- India has been a major importer of chemicals; the sector made up 7.6 per cent of India’s total imports in FY15
- Total imports of chemicals grew from USD 7.5 billion in FY06 to USD 19.0 billion in FY15
- In 2015-16, organic chemicals constituted **44.05 per cent of India’s total chemical exports**, followed by dyes & dyestuff at 18.07 per cent

Source: FICCI, Department of Chemicals & Petrochemicals – Gov. of India
Gujarat scenario
Gujarat: Hub for chemical industry

Gujarat, the hub of chemical industry in India, accounts for 62% of India’s petrochemical production, 35% of other chemicals production and 18% of India’s chemical exports

- The chemical industry in Gujarat is a significant component of State's economy with revenues at ~ INR 4,50,000 crore in 2012
- Gujarat’s chemical & petrochemicals industry comprises of about 500 large and medium scale industrial units, about 16,000 of small scale industrial units and other factory units
- Government support, world class infrastructure, strategic location, availability of skilled workforce and raw material makes Gujarat a preferred location for chemical plants
- Over 6500 chemicals & petrochemicals are produced in the state
- Largest supplier of bio fertilizers, seeds, urea and other fertilizers
- Also Gujarat has taken the lead to promote environment friendly practices through Effluent Treatment Plant; currently 28 such plants are operational and further 6 are proposed

Source: FICCI, Department of Chemicals & Petrochemicals – Gov. of Gujarat; GPCB

Gujarat’s share in India’s production of major chemicals

- Soda ash: 91%
- Polymers: 58%
- Acetic acid: 51%
- Ethylene: 50%
- Caustic Soda: 42%
- LAB: 38%
- Methanol: 35%
Some of the largest chemicals & petrochemicals complexes of World are present in Gujarat

<table>
<thead>
<tr>
<th>Refineries (93 MMTPA)</th>
<th>Chemical and LNG terminal (20 MMTPA)</th>
<th>Petrochemical complexes</th>
<th>Chlor Alkali plants</th>
<th>Soda Ash plants</th>
<th>Chemical Fertilizer plants</th>
<th>Agro Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOCL</td>
<td>Petronet LNG terminal Dahej</td>
<td>IPCL</td>
<td>GAACL</td>
<td>Tata Chemicals</td>
<td>IFFCO</td>
<td>Baroda Agro</td>
</tr>
<tr>
<td>RIL</td>
<td>LNG Hazira</td>
<td>RIL</td>
<td>IPCL</td>
<td>Gujarat Heavy Chemicals</td>
<td>UPL</td>
<td>Aristo Biotech</td>
</tr>
<tr>
<td>Essar</td>
<td>Chemical port terminal Dahej</td>
<td>ONGC</td>
<td>UPL</td>
<td>Nirma</td>
<td>GSFC</td>
<td>Super Crop Safe Ltd</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Shriram</td>
<td>Saurashtra Chemicals</td>
<td>GNFC</td>
<td>Excel Crop Care</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Atul</td>
<td>Dhrangadhra Chemicals</td>
<td>KRBHCO</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Indian Rayon</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PCPIR is a specifically delineated Investment Region planned for the establishment of production facilities for petroleum, chemicals and petrochemicals.

- Spread over 453 sq km of brown-field area in the coastal belt of Gulf of Khambhat in Bharuch District
- Vicinity of other existing GIDC chemical estates, viz. Jhagadia, Ankleshwar, Panoli and onsite chemical port terminal & LNG terminal at Dahej
- The proposed SEZ in PCPIR includes, petrochemical and downstream petrochemical industries, synthetic organic chemicals, industrial gas producing industry, packaging industry, shipbuilding/fabricating unit and other small chemical industries

Source: Gujarat Industrial Development Corporation
**PCPIR Advantage**

### Export promotion measures
Chemical port terminal and chemical storage facility at Dahej

### Well established infrastructure
- Notified and Operational Dahej SEZ
- Quality workforce, peaceful labour, least man days lost

### Regulatory Framework
- Gujarat SIR Act, 2009
- Gujarat SEZ Act 2004
- Notified Area Authority under GIDC Act, 1962
- Gujarat Town Planning and Urban Development Act, 1976
- Gujarat Infrastructure Development Act, 1999

### Availability of natural resources
- Concentration of Petroleum, Chemical and Petrochemical estates across the district
- Rich natural resources and feedstock availability

### Location advantage
- With a capacity of 35 MMTPA, Dahej port is present in the region*
- The anchorage is at a distance of 5 km from the old port and 6 km from a container terminal in Jageshwar, Bharuch

### Road and rail
- National Highway 8 passes through the district, connecting it with Ahmedabad (182 km) and Mumbai (362 km), along with the DMIC
- Delhi-Mumbai broad gauge railway line, Bharuch-Dahej railway line

### Airport connectivity
- The nearest airport is present in Vadodara which is 100 km away from the region.
- Ahmedabad International Airport is 200 km

### Support infrastructure
- LNG terminal, liquid fuel jetty and solid cargo jetty
- Two 220 KV power sub-stations at Dahej and Vilayat, three 66 KV sub-stations at Dahej, Luna and Vilayat
- Water Supply by GIDC and GWSSB; Gas Supply by GGCL

*Source: Gujarat Industrial Development Corporation  
*includes Private Port and Captive jetty capacities
## Gujarat Industrial Policy 2015

### Thrust Sectors
- Plastics
- Industrial infrastructure
- Specialty and fine chemicals
- Auto and Auto Components
- Food and Agri Business

### Incentives
- Various Sector specific
- Separate set of incentives for MSME
- Scheme for assistance for Start-ups/ Innovation

### HR/Labor
- Promotion of labor intensive industries
- Support to young entrepreneurs
- Facilitate Centers of Excellence and specialized sectors for skill enhancement

### Business Environment
- Ease of Doing Business
- Single window clearance
- Market Development Initiatives
- Trade Facilitation centers

### Infrastructure
- Facilitation of Large/ Mega Projects
- Support for industrial and connectivity infrastructure
- Improvement of environmental infrastructure

---

**As per Industrial Policy 2015, Government of Gujarat provides support for development of SEZs, SIRs and Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) to encourage the investments in chemicals sector.**

### Licensing Policy
- In Chemical Sector, 100% FDI is permissible in India. Manufacture of most chemical products inter-alia covering organic / inorganic, dyestuffs & Pesticides is de-licensed
- The entrepreneurs need to submit only IEM with the Department of Industrial Policy & Promotion, Govt. of India.
- Hazardous products come under compulsory licensing policy

### Custom Duty
- Customs Duty on most Organic, Inorganic Chemicals, Pharmaceuticals, Fertilizers and other miscellaneous chemicals is 7-10% in India

### Excise Duty
- Excise duty in India has been reduced; now to the tune of ~10%

### VAT Duty
- VAT on most chemicals reduced to 5% in Gujarat

---

Source: IBEF, Gujarat Industrial Policy 2015
Proposed interventions

The State Government gives the following incentives for the manufacturing units of Specialty and Fine Chemicals:

• Graded interest subsidy for five years @ 7% for MSMEs and 2% for large industries having an actual investment up to INR 100 crores with maximum cap of INR 25 lakhs (for MSMEs) and INR 50 lakhs (for large units)

• An Industrial Park coming up in private area / GIDC estate (with minimum 25 industrial units) will be provided incentive of 50% of total expenditure limited to INR 20 crores

• One time assistance up to 80% of the total expenditure limited to INR 10 crores for the cost of plant & machinery testing equipment

• Assistance upto 75% of total project cost i.e. building, plant and machinery, civil construction and other fixed assets needed for the project and as approved by SLAC (if GOI contribution is available). Assistance upto 40% if GOI assistance is not given

• One time assistance of 70% of the total expenditure limited to INR 30 crores (in case of international level Center of Excellence)

• Mega project with an actual investment of atleast INR 1000 crore providing direct employment to atleast 2000 persons will be incentivized on case to case basis as decided by the State Level Approval Committee (SLAC)
Leading players and Investment Opportunities

- High Performance Chemicals
- Textiles Chemicals
- Pigments and Coating Products
- Engineering Polymers
- Bio Refineries
- Feedstock Linkages
- Acrylic Fibres
- PP Filament Yarn
- Reliance Industries Limited
- ONGC
- GaL
- Hindalco
- BASF
- Perstorp
- ESSAR
- MOL
- DCL
- GSPC
- IFFCO
- PIC
- Nirma
- Bayer
- Nirma
- SRF
- GSPL
- Bayer
- ROXUL
- U
- Pidilite
- GNFC
- DuPont
- LANXESS
- DyStar
- TATA Chemicals
- KRIBHCO
- Sabic
<table>
<thead>
<tr>
<th>Key contacts</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industries and Mines Department, Govt. of Gujarat</td>
<td><a href="http://www.imd-gujarat.gov.in">http://www.imd-gujarat.gov.in</a></td>
</tr>
<tr>
<td>Industries Commissionerate</td>
<td><a href="http://www.ic.gujarat.gov.in">http://www.ic.gujarat.gov.in</a></td>
</tr>
<tr>
<td>Gujarat Industrial Development Corporation</td>
<td><a href="http://www.gidc.gov.in">http://www.gidc.gov.in</a></td>
</tr>
<tr>
<td>Energy and Petrochemicals Department, Govt. of Gujarat</td>
<td><a href="http://www.guj-epd.gov.in">http://www.guj-epd.gov.in</a></td>
</tr>
</tbody>
</table>
THANK YOU

Disclaimer:
Industrial Extension Bureau (iNDEXTb), Government of Gujarat has made every attempt to ensure the accuracy and reliability of the information provided in this document. However, the information is provided "as is" without warranty of any kind. iNDEXTb periodically adds, changes, improves or updates the information in this document without any notice. For further clarification kindly get in touch with Industrial Extension Bureau (iNDEXTb), Government of Gujarat.