



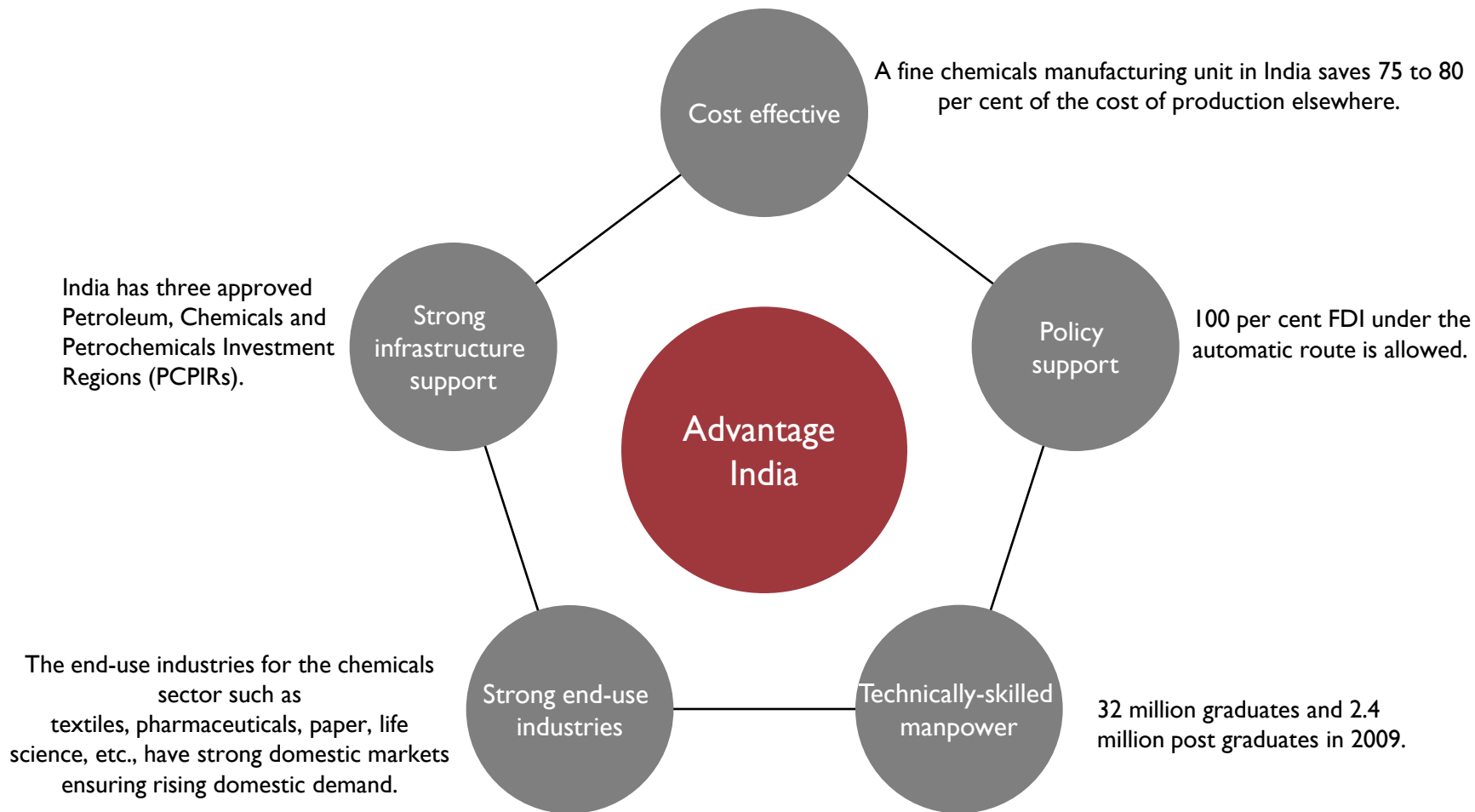
INORGANIC CHEMICALS

April 2010

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Advantage India



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Market overview

The Indian chemicals industry is twelfth largest in the world and third largest in Asia in terms of volumes.

The industry contributes 3 per cent to the national GDP.

The Indian chemicals industry is currently valued at around US\$35 billion.

Overview of the Indian chemicals industry

The industry accounts for 13 to 14 per cent of total exports and 8 to 9 per cent of total imports.

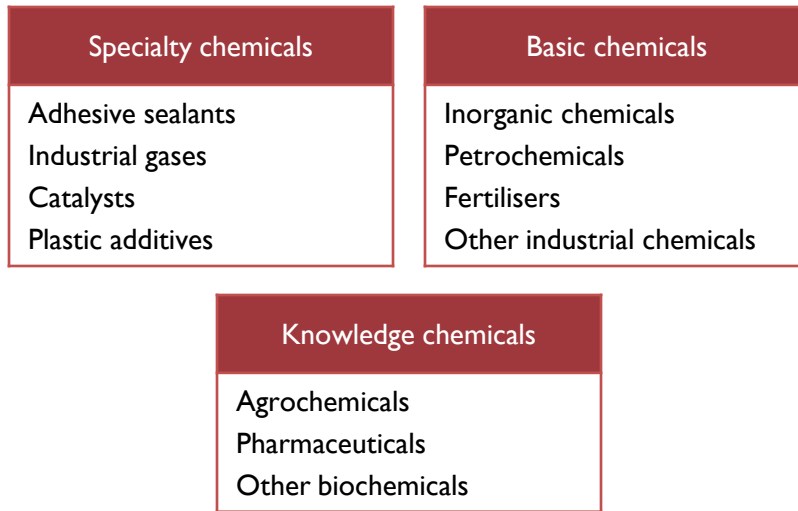
The industry registered a growth of 10 per cent in 2009–2010.*

The Indian chemicals industry has evolved from being a basic producer of chemicals to an innovative industry.

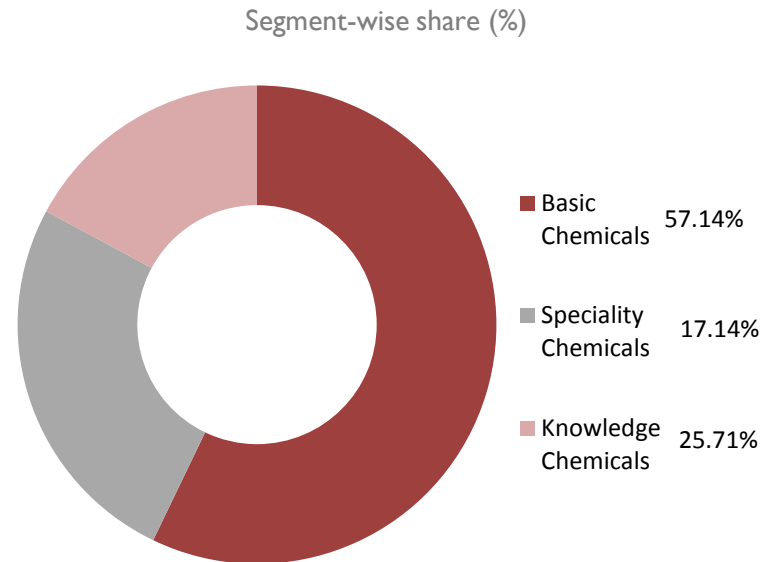
*From April to November 2009 and based on IIP, 1993-94=100

Sources: Department of Chemicals & Petrochemicals, Economic Survey of India, 2009–2010; Annual Report 08–09; <http://chemicals.nic.in/chemI.htm>

Industry segments



Source: Department of Chemicals & Petrochemicals, <http://chemicals.nic.in/chemI.htm>



Source: Department of Chemicals and Petrochemicals

Inorganic chemicals — segmentation

Basic inorganic chemicals

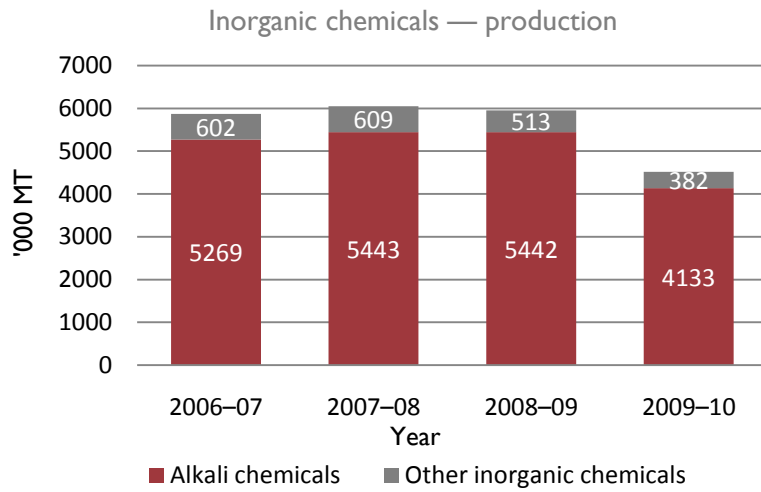
- Aluminium fluoride
- Calcium carbide
- Carbon black
- Potassium and sodium chlorate
- Titanium dioxide
- Red phosphorus

Alkali chemicals

- Soda ash
- Caustic soda
- Liquid chlorine

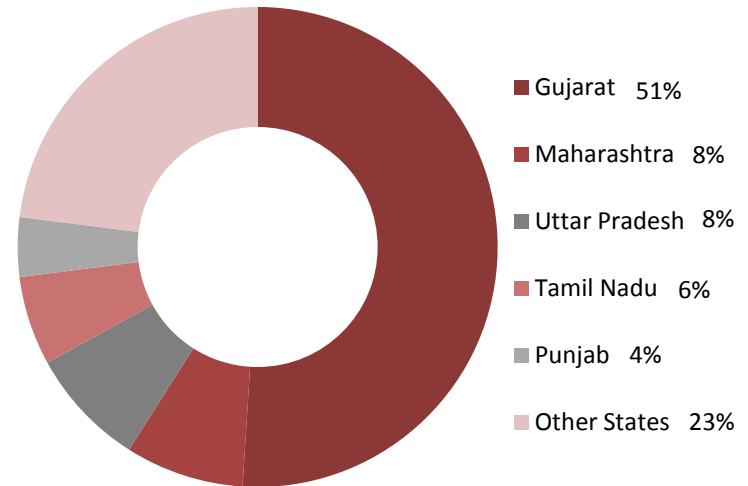
Source: Planning Commission, Working group - I I, Chemicals Report

Inorganic chemicals — production



Source: Economic Survey of India, 2009-2010

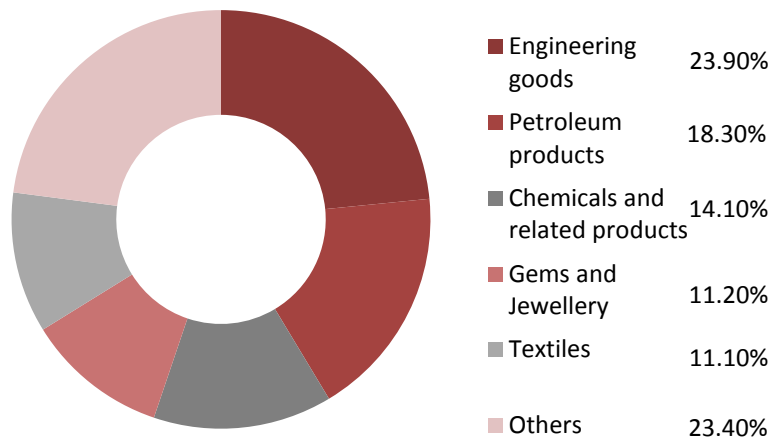
State-wise share in production of major chemicals (2008-09)



Source: Department of Chemicals and Petrochemicals

Inorganic chemicals — exports

Share of chemicals sector in India's exports
2008–09

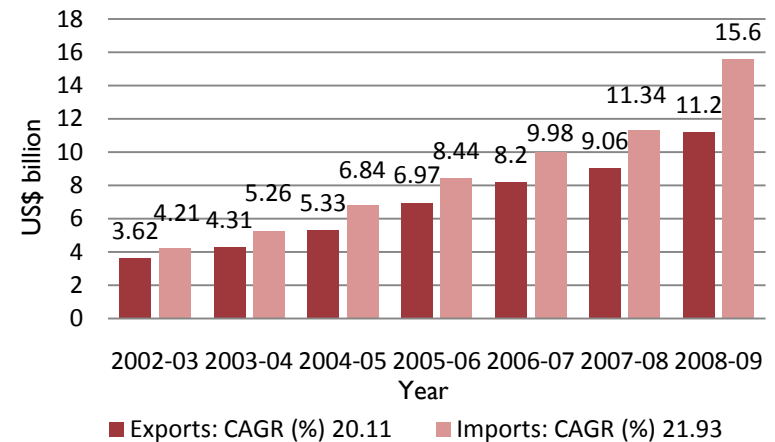


Source: Department of Commerce, GoI, Annual Report, 2008–09

- The chemicals sector contributed 14.1 per cent to the total national exports in 2008–09.
- Exports in the sector have grown at a CAGR of 17.5 per cent from 2002–03 till 2008–09.
- Majority of the chemicals exported are alkali chemicals.

Sources: Department of Commerce, GoI annual report, 2008-09; Department of Chemicals and Petrochemicals, GoI annual report, 2008-09

Exports and imports in the chemicals sector



Source: Department of Chemicals and Petrochemicals, GoI, Annual Report, 2008–09

Key trends

Industry trends

- The Indian chemicals industry is highly fragmented and is moving toward consolidation.
- India has a low share in global exports of chemicals due to a strong domestic market.
- With growing investments in R&D, the industry is registering significant growth in the knowledge chemicals sector.
- The industry is focussing on increasing innovations to produce environment-friendly technology and products.

Investment trends

- Since 1991, the Indian chemicals sector has been consistently ranking third among all sectors in terms of the amount of investment,.
- Between 1991 and 2009, investment intentions worth US\$ 99.41 billion (INR 4,772.03 billion)*, have been received in the chemicals sector. This accounts for 8.73 per cent of the total investment intentions and 7.47 per cent of the total employment expected to be generated.

*Till Sept 2009

Foreign exchange rate: 1US\$=INR48.00

Source: Department of Industrial Policy and Promotion, SIA Statistics-October 2009, <http://siadipp.nic.in/publicat/stats/oct2009/index.htm>

Key growth drivers

High domestic demand potential

- Per capita consumption of chemical products in India is about one-tenth of the world average.
- Consumption grew at a CAGR of 5.56 per cent between 2002 and 2008.
- Supported by favourable factors such as strong economic growth, the domestic demand potential for chemicals is rising.

Focus on R&D

India has a strong base for innovation in its network of 200 national laboratories and 1,300 R&D units, which can be leveraged for the shift towards an innovation-based industry.

Outsourcing

Increasing number of multinational companies (MNCs) are viewing India as a base for manufacturing and supplying to their global markets.

Consolidation

The Indian chemicals industry is moving towards greater consolidation in order to achieve economies of scale.

Source: Department of Chemicals and Petrochemicals; 'Indian Specialty Chemicals', Ernst & Young-FICCI Report

Key players — Indian*

Company	Sales in 2008–09 US\$ million (INR million)	Products
Tata Chemicals Limited (TCL)	700 (33,550)	Soda ash, salt, marine chemicals, caustic soda, cement and bulk chemicals.
Nirma Ltd.	500 (24,000)	Alkyl benzene, alfa olefin sulphonate, sulfuric acid, soda ash, pure salt, etc.
Gujarat Heavy Chemicals Ltd. (GHCL)	252.4 (12,110)	Soda ash
Gujarat Alkalies and Chemicals Ltd. (GACL)	301 (14,440)	Caustic soda
United Phosphorus Limited (UPL)	1,000 (48,000)	Agrochemicals
Solaris Chemtech Industries Ltd.	52.12 (2,500)	Bromine and bromine chemicals

Foreign exchange rate: 1Euro=US\$1.44

Source: Individual company websites and annual reports; Reuters

* This list is indicative

Key players — international*

Company	Sales in 2008–09 US\$ billion	Products
BASF	89.7 (€ 62.3 billion)	Chemicals, plastics, performance and nutrition products
AkzoNobel	22.2 (€15.40 billion)	Coatings, decorative paints and specialty chemicals
Dow Chemicals Ltd.	45.0 (INR 2,160 billion)	Specialty chemicals, agrochemicals and plastics
E. I. du Pont de Nemours and Company	27.0 (INR 1,296 billion)	Specialty and fine chemicals
INEOS	47.0 (INR 2,256 billion)	PVC films and specialty resins
Wacker Chemie	3.6 (€ 2.50 billion)	Silicone, polymer, specialty and fine chemicals
Bayer	44.9 (€ 31.17 billion)	Agrochemicals, pharmaceuticals, polymers, technology services, etc.
Lanxess	9.5 (€ 6.58 billion)	Plastics, rubber, specialty chemicals and intermediates
Evonik Industries	22.9 (€ 15.9 billion)	Specialty chemicals

Foreign exchange rate: 1Euro=US\$1.44

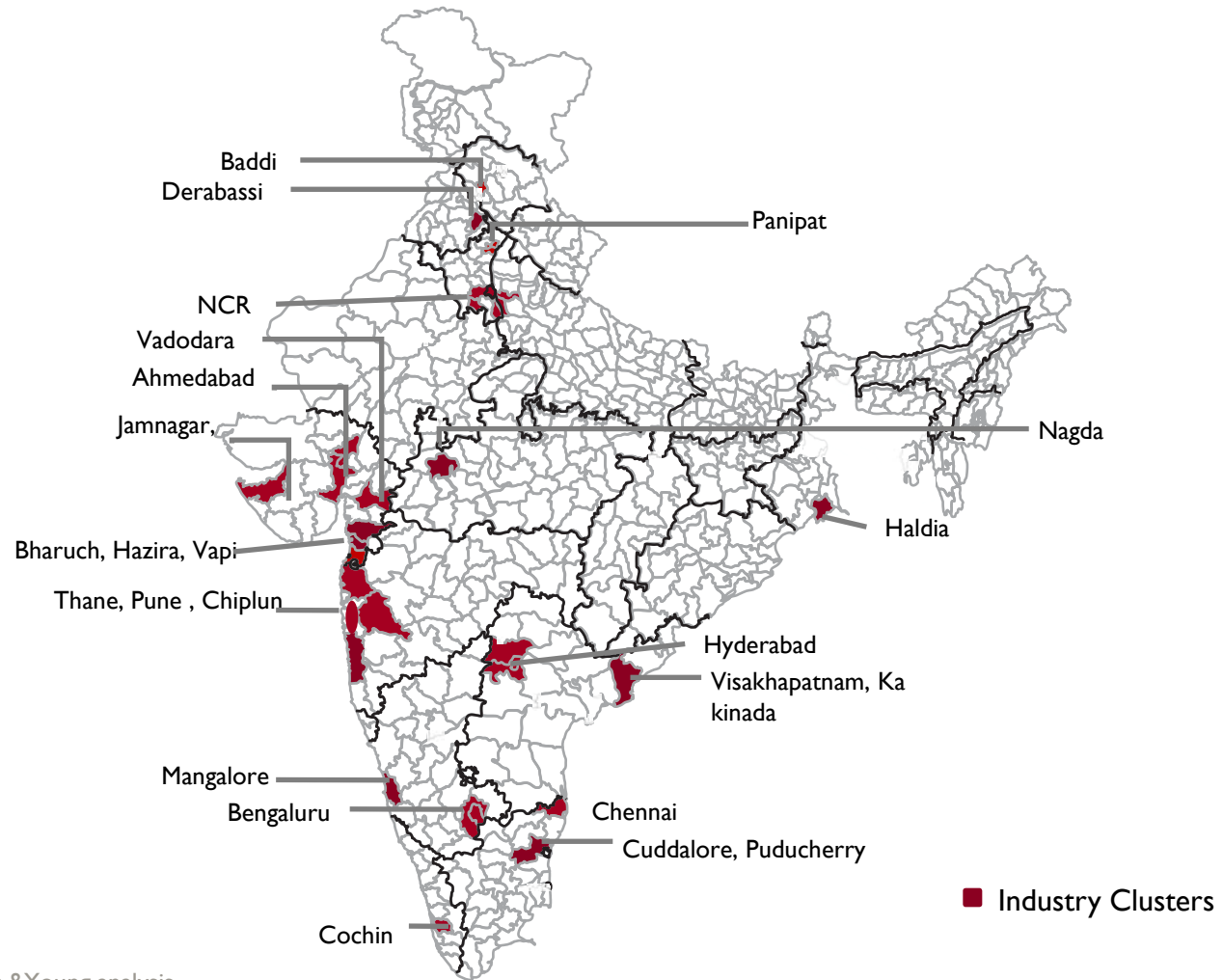
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Industry infrastructure



Sources: SEZ India, Ernst & Young analysis

Industry infrastructure — Special Economic Zones (SEZs)

Jubilant Chemicals SEZ is the major exclusive chemicals SEZ located in Bharuch, Gujarat, apart from the five major PCPIR* regions in India.

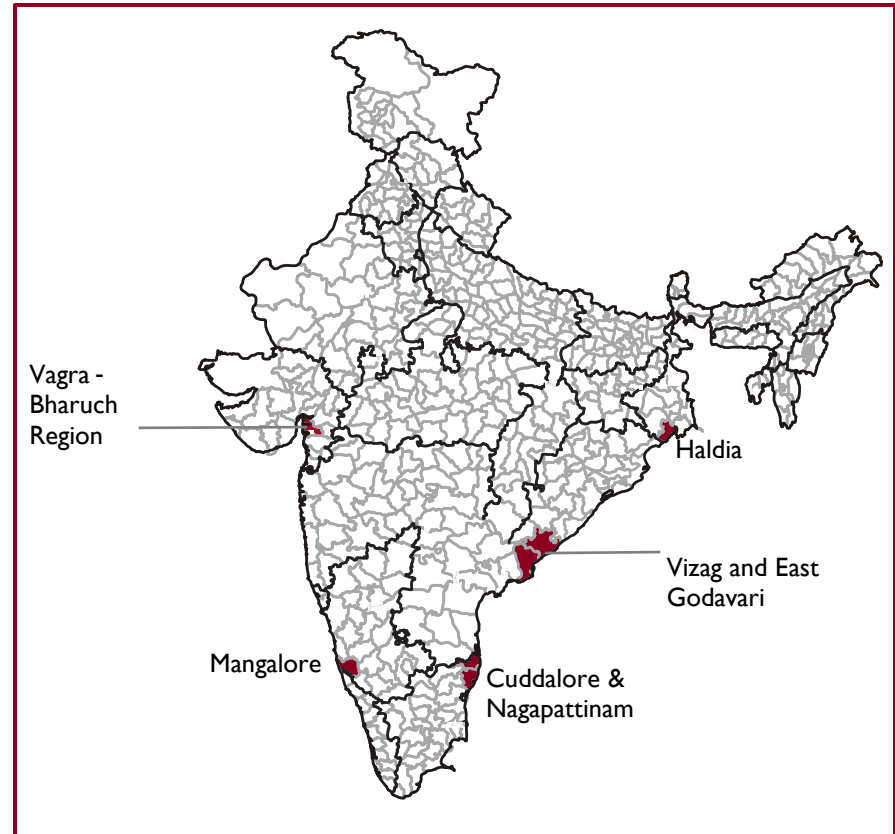


Jubilant Chemicals SEZ	
Location	Vilayat, Bharuch (Gujarat) (20 km from Dahej)
Area	160 hectares
Developer	Jubilant Infrastructure Ltd.
Contact Details	I-A, Sector 16-A, Industrial Area Noida-201301, Uttar Pradesh, India Tel: 91 120 2580309 Fax: 91 120 2580310 Website: www.jubl.com

Sources: Department of Commerce, GoI, Annual Report, 2008-09; SEZ India; Industries Commissionerate, Government of Gujarat, Ernst & Young analysis

Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) ... (I/2)

- PCPIR is a specifically delineated investment region with an area of around 250 sq.km.
- The region has planned infrastructure to establish manufacturing facilities for domestic and export-led production in petroleum, chemicals and petrochemicals.
- It is designed to house production units, public utilities, logistics infrastructure, environmental protection mechanisms, residential areas and administrative services.
- PCPIR includes SEZs, industrial parks, free trade and warehousing zones (FTWZ), export-oriented units (EOUs) or growth centres.
- PCPIR is linked through external physical infrastructure such as rail, road (National Highways), ports, airports and telecommunications.



Source: Ernst & Young analysis

Source: Department of Chemicals and Petrochemicals

Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) ... (2/2)

State	Location	Details/status	Leading players
Gujarat	Dahej, Bharuch	<ul style="list-style-type: none"> • Approved • Area — 5,000 hectares • Investment potential of US\$ 10.42 billion (INR 500 billion) 	Indian Petrochemicals Corporation Limited (IPCL), Petronet LNG, Gujarat Chemical Port Terminal Company Limited (GCPTL), etc.
Andhra Pradesh	Visakhapatnam to Kakinada	<ul style="list-style-type: none"> • Approved • Area — 60,358 hectares • Investment potential of US\$ 71 billion (INR 3,430 billion) 	Hindustan Petroleum Corporation, LG Polymers India Pvt. Ltd., Nagarjuna Fertilizers & Chemicals Ltd., etc.
West Bengal	Haldia mainland to Nayachar island	<ul style="list-style-type: none"> • Approved • Area — 25,000 hectares 	IOC Petronas, Tata Chemicals, Haldia Petrochemicals, etc.
Orissa	Paradip	<ul style="list-style-type: none"> • Area — 28,414 hectares 	Tata-Sasol, etc.

Source: <http://www.indiachem.in/pcpir.htm>. Presentations made by respective state government at India Chem 2008

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Investments

Mergers & Acquisitions

Indian deals

Announcement date	Acquirer	Target	Deal value (US\$ million)
November 2009	Tata Chemicals Ltd.	Rallies India Ltd.	11.7
June 2009	Dorf Ketal	Intec Polymer of Sanmar Group	-
April 2009	Lanxess AG	Gwalior Chemical Industries Ltd.	115
April 2009	Huntsman Corporation	Textile effects division of Metrochem Industries	50

- The chemicals sector* attracted cumulative Foreign Direct Investment (FDI) of US\$ 192 million in 2009–2010.
- Between August 1991 and September 2009, approvals for more than 900 Foreign Technology Transfers (FTT) have been granted in the chemicals sector, accounting for 11.20 per cent of the total approvals.

*Excluding fertilisers

Source: 'Chemicals NewViews', July-September 2009, Ernst & Young; Bloomberg; Wall Street Journal

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Policy and regulatory framework

Licensing policy

- Licensing requirements have been removed, except for hazardous chemicals and a few special drugs.
- Entrepreneurs are allowed to set up chemicals industries following the Industrial Entrepreneurs' Memorandum (IEM) route.
- Under the automatic route, 100 per cent FDI is allowed for all chemicals except hazardous chemicals.

Customs duty

- The peak rate of customs duty on most chemicals is 7.5 per cent.

Excise duty

- 16 per cent excise duty on almost all chemicals.

PCPIR policy

- PCPIR Policy has been introduced to boost the development of chemicals and petrochemicals investment regions.

Others

- Plans are underway to set up port-based chemicals parks in SEZs to encourage clustering, provide infrastructure and enable tax concessions.
- Downstream SEZs have been planned to use the output of chemicals parks.

Source: Department of Chemicals and Petrochemicals

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Opportunities ... (1/2)

Alkali chemicals

- Alkali chemicals form the largest segment in the Indian inorganic chemicals sector.
- Significant demand-supply gap indicates need for fresh investment. Production of alkali chemicals in 2007–08 was 5.44 million MT whereas the consumption was 5.83 million MT, indicating a significant demand-supply gap.
- The sector presents growth potential in both domestic and export markets .

Knowledge and specialty chemicals

- High demand potential due to growth in end-user industry segments such as life sciences and pharmaceuticals.

Opportunities ... (2/2)

Logistics services

- Logistics is a key cost element for the industry.
- Logistics service providers, which focus on the chemicals industry, can provide cost efficient solutions.

R&D

- As in other sectors, leveraging India's engineering strengths to establish an R&D centre could be an attractive option for MNCs. The government is also promoting R&D in the sector by funding institutes to conduct industry-specific research.

MT: Metric Tonnes

Source: Department of Chemicals and Petrochemicals

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Industry associations

Indian Chemical Council

Sir Vithaldas Chambers, 16-Mumbai Samachar Marg, Mumbai – 400023

Phone: 91-22-22047649/ 22846852

Fax: 91-22-22048057

Website: www.icmaindia.com

Alkali Manufacturers Association of India

3rd Floor, Pankaj Chambers, Preet Vihar Commercial Complex, Vikas Marg, New Delhi – 110092

Phone: 91-11-22432003, 22410150, 55253401

Fax: 91-11-22468249

Website: www.ama-india.org

Indian Specialty Chemical Manufacturers' Association

1156, Bole Smruti, Suryavanshi Kshatriya Sabhagriha Marg, Off. Veer Savarkar Marg, Dadar (West)

Mumbai – 400 028

Tel: 91-22-2446 5003

Website: www.iscma.in

Source: Department of Chemicals and Petrochemicals

Note

Wherever applicable, numbers in the report have been rounded off to the nearest whole number.

Conversion rate used: US\$ 1 = INR 48

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