



Confederation of Indian Industry

CII Southern Region

Industry and Economic Update

Chemicals and Fertilisers

January-March 2010

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RECENT POLICY DEVELOPMENTS

Nutrient based subsidy (NBS) policy 2010

- The government has approved the nutrient-based fertiliser subsidy policy which will come into effect from 1st April, 2010. It has allowed a 10% hike in urea prices and a price decontrol of all other fertilisers. Government has thus decided to increase the maximum retail price of urea from Rs. 4,830 per MT to Rs. 5,310 per MT with effect from 1st April, 2010.
- Under the new policy, subsidy will be given to nutrients like nitrogen, phosphorus, potash and sulphur. The government however, will continue to fix the prices of urea. The new policy will provide for an additional fixed subsidy for fortified subsidized fertilizers. This is expected to promote balanced fertilization through new fortified products and focus on extension services by the fertiliser industry. This will lead to an increase in agricultural productivity and consequently better returns for the farmers. The policy is further expected to reduce volatility in the demand for fertilizer subsidy in addition to containing the subsidy bill. The government will ensure that nutrient based fertiliser prices for transition year 2010-11, will remain around Maximum Retail Prices (MRPs) currently prevailing. The new fertiliser policy is expected to help attract investment. The move signifies the end of the bond regime in fertiliser.

Other developments

- The government has decided to examine the feasibility of revival of the Hindustan Fertiliser Corporation Ltd (HFCL) and Fertilizer Corporation of India Ltd (FCIL), subject to confirmed availability of gas. An Empowered Committee of Secretaries, constituted to look into the various financial models for revival of the closed units, has recommended the revenue-sharing model (RSM) with an upfront fee for the revival of each unit through the Build Own and Operate (BOO) mode. Action is being taken by the respective companies for finalization of a fully tied up revival proposal for each unit. Revival of Madras Fertilisers Ltd (MFL), Fertilisers & Chemicals Travancore Ltd (FACT) and Brahmaputra Valley Fertiliser Corporation Ltd (BVFCL) is also under consideration.
- The Revised Concession Scheme for decontrolled phosphatic and potassic fertilizers was announced, under which final rates for concession, to be worked out on a monthly basis, for indigenous DAP would be the same as those for imported DAP.
- A sector-specific investment region, 'Petroleum, Chemicals and Petrochemicals Investment Region' (PCPIR) has been set up to ensure adoption of a holistic approach to promote the petroleum, chemicals and petrochemicals sectors in an integrated and environment -friendly manner. The PCPIR region would be a combination of production projects, public utilities, logistics, environmental protection, residential areas and administrative services.

Union Budget, 2010-11 on Fertilisers

Proposals (Budget 2010-11)

- Nutrient based subsidy (NBS) with effect from April 1, 2010, to reduce subsidy burden and improve agricultural productivity
- Budgetary provision for subsidy: Rs. 52,980 crore (RE 2009-10) and Rs. 49,981 crore (BE 2010-11)
- Payment of subsidy in cash to the fertiliser companies rather than by way of bonds

Chemicals and Fertilisers

- ❑ Thrust on agriculture through higher agricultural credit and subvention of interest on farm loans

Impact—Neutral

- ❑ NBS announcement has already been made by the Government. Its impact on the industry players would be a function of the subsidy provided in the Union Budget and level of increase in MRP to be achieved by the industry players. Efficient DAP/complex fertilizer companies should be benefited from the new policy.
- ❑ Budgetary provision for the current fiscal may be marginally falling short of requirements in view of the surge in imported DAP & phosphoric acid prices in recent months. Budgetary provision for the next fiscal also appears on the lower side, if the current level of fertilisers/intermediate prices is sustained in the global markets. As the industry may not be in a position to pass on the rise in costs to the farmers in view of the commitment given to the Government for Kharif 2010, additional subsidy provision may be required for the industry. However, the commitment of the Government to pay the entire subsidy in cash rather than through bonds is a positive development for the industry from working capital and profitability point of view.

Union Budget, 2010-11 on Petrochemicals

Proposals (Budget 2010-11)

- ❑ Increase in basic customs duty on naphtha from 5% to 10%.

Impact—Negative

Increase in customs duty on naphtha will lead to an inverted duty structure for the naphtha based petrochemical companies, as the customs duty on polymers and chemicals produced from naphtha is lower than 10%. This will lead to modest fall in the profitability of these players (such as naphtha crackers and aromatics producers) on domestic sales.

INDUSTRY UPDATE

Chemicals Industry in India

The Chemicals Industry is one of the oldest industries in India, which contributes significantly towards industrial and economic growth of the nation. It is highly science based and provides valuable chemicals for various end products such as textiles, paper, paints and varnishes, leather etc., which are required in almost all aspects of life.

The Chemical Manufacturing subsector is based on the transformation of organic and inorganic raw materials by a chemical process and the formulation of products. This subsector distinguishes the production of basic chemicals that comprise the first industry group from the production of intermediate and end products produced by further processing of basic chemicals that make up the remaining industry groups.

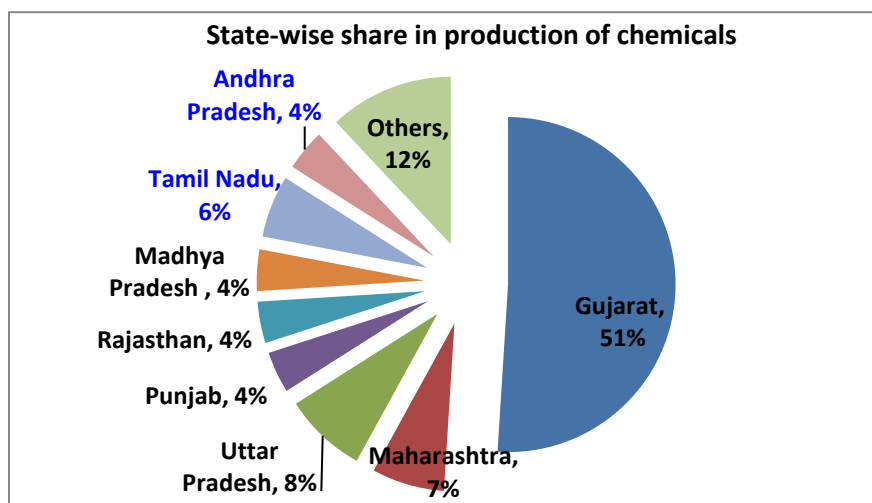
India manufactures over 70,000 chemicals and is the 12th largest producer of chemicals in the world. Chemicals industry size is estimated to be around 160,000 crore or US\$35 billion¹. The industry constitutes about 3% of GDP and 18% of manufacturing sector. The chemicals industry employs around 1 million people.

The Indian Chemicals Market Segment

Segment	Market Value (billion US\$)
Basic Chemicals	20
Specialty Chemicals	9
High End / Knowledge Segment	6
Total	35

Source: Department of Chemicals and Petrochemicals

State-wise Share in Production of Chemicals



Source: Ministry of Chemicals & Fertilisers, ImaCS Analysis

Production of Major Chemicals

¹ Department of Chemicals and Petrochemicals and Investment Commission of India

Chemicals and Fertilisers

In '000 MT

Year	Alkali Chemicals	Other inorganic chemicals	Organic chemicals	Pesticides	Dyes & stuffs	Total major chemicals
2005-06	5475	544	1545	82	30	7676
2006-07	5269	602	1545	85	33	7534
2007-08	5443	609	1552	83	44	7731
2008-09	5442	513	1254	85	32	7326
2009-10 (Apr-Dec)	4133	382	920	58	30	5523

Source: Department of Chemicals and Petrochemicals

Key Players in the Indian Chemicals Industry

1	Reliance Industries Limited (RIL)
2	Gas Authority of India Limited (GAIL)
3	Haldia Petrochemicals Limited
4	Tata Chemicals
5	Ciba
6	Rallis
7	Hindustan Organic Chemicals (HOCL)
8	Gujarat Narmada Valley Fertilisers Corporation

Source: IMaCS Analysis

Fertilisers Industry in India

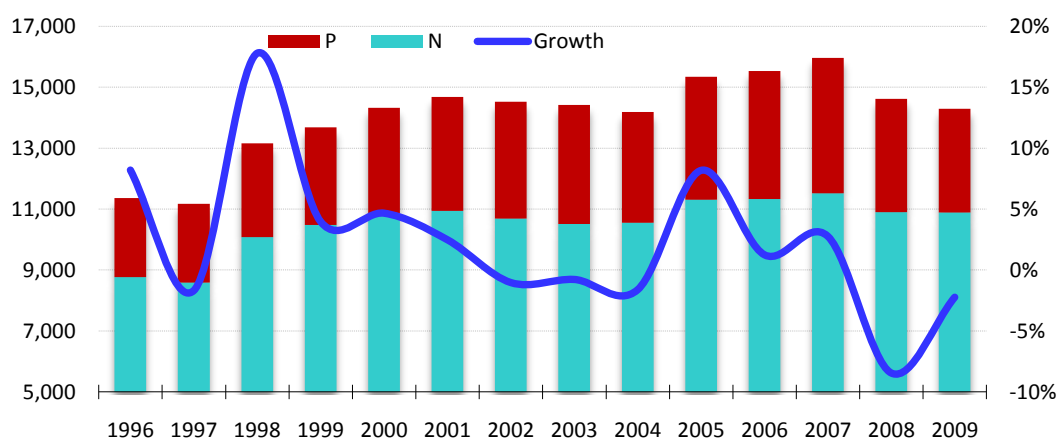
Fertiliser is generally defined as "any material, organic or inorganic, natural or synthetic, which supplies one or more of the chemical elements required for the plant growth". The Indian fertiliser industry concerns itself with providing the three main nutrients – Nitrogen, Phosphorous and Potassium. Besides, being used as fertilisers themselves, these three nutrients are combined to produce several complex fertilisers.

India is the third largest producer and consumer of fertilisers in the world.

India's Fertiliser Production

Currently, India has about 42 MT of installed capacity to produce fertilisers. Of this, about 20 MT is for production of urea and about 13 MT is for DAP and other nutrients. About 7.2 MT capacities have been set up for production of Single Super Phosphate (SSP) fertiliser. The capacity expansion is likely to happen in various modes including greenfield projects, brownfield projects and revival of 7-8 closed fertiliser units.

Nutrient terms



Source: IMaCS analysis

There is no indigenous production of Muriate of Potash (MOP) as there are no exploitable reserves of MOP in the country.

The quantum of subsidy disbursed by Government on fertiliser during the last three years and the expenditure on subsidy for the current year till 13th November, 2009 is as below:

Quantum of Subsidy Disbursed by the Government

(Rs. in billion)

Period	Amount of concession disbursed on decontrolled fertilisers (indigenous + imported)	Amount of subsidy disbursed on urea			Total of all fertilisers
		Indigenous urea	Imported urea	Total urea for	
2006-07	10298.12	12650.37	5071.06	17721.43	28019.55
2007-08	16933.80	16450.37	9934.99	26385.36	43319.16
2008-09	6554.79	20968.74	12971.18	33939.92	99494.71
2009-10 (Expenditure upto 13.11.09)	24037.34	10410.81	4311.54	14722.35	38759.69
TOTAL	116824.05	60480.29	32288.77	92769.06	209593.11

Source: Ministry of Chemicals and Fertilisers

There has been no significant investment to raise fertiliser capacity in India in the last 10 years because of tight government controls and policy uncertainty. In 2008-09 the country imported 21 percent of the urea it used, 67% of DAP, and 100% of MOP. Phosphate fertilisers account for a fifth of

demand, while potash accounts for 8%. Nitrogen-based urea accounts for more than half of fertiliser consumption because of heavy government subsidy on this nutrient.

Recent Developments

India's total foodgrains production in 2008-09 was at 233.88 million tonnes as against 230.78 million tonnes in 2007-08 and 217.28 million tonnes in 2006-07. As per the first advance estimates (kharif only) for 2009-10, production of foodgrains is estimated at 98.83 million tonnes which is lower than the target of 125.15 million tonnes set for the year as also lower than the fourth advance estimates (kharif only) of 117.70 million tonnes for 2008-09.

Rainfall statistics:-

- Fairly widespread to widespread rainfall occurred over Sub-Himalayan West Bengal & Sikkim and Jammu & Kashmir on one or two days of the week.
- Isolated to scattered rainfall occurred over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim and Himachal Pradesh on many days of the week and over Andaman & Nicobar Islands, Arunachal Pradesh, Jammu & Kashmir and south interior Karnataka on a few days of the week and over Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Orissa, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu and Kerala on one or two days of the week.
- Mainly dry weather prevailed over the remaining parts of the country during the week.

Area Weighted Rainfall

Region	Week Ending on 03.03.2010			Period ending on 28.02.2010		
	(in mm)		Deviation (%)	(in mm)		Deviation (%)
	Actual	Normal		Actual	Normal	
North West	6.5	12.5	-48	57.5	83.6	31
Central India	0.1	2.6	-96	8.6	19.0	-55
South Peninsular India	0.4	1.6	-73	14.8	16.1	-8
North-East India	9.0	9.9	-9	7.3	53.9	-86
Country as a whole	3.6	6.6	-46	24.6	43.8	-44

Source: IMD

Rainfall Situation

State	01.01.2010 to 28.02.2010			
	Actual	Normal	Deviation (%)	Category
Andhra Pradesh	15.9	11.1	43	E
Tamil Nadu	11.3	35.2	-68	S
Pondicherry	46.7	74.9	-38	D
Karnataka	10.9	4.8	129	E
Kerala	19.4	28.1	-31	D

Source: IMD

E: Excess, N: Normal, D: Deficient, S: Scanty, NR: No Rain

Chemicals and Fertilisers

Area Coverage under Rabi Crops

Upto December 18, 2009

	Normal Area	Area Sown (in lakh hectares) 2009	Area Sown (in lakh hectares) 2008	Change
Wheat	270.99	231.32	226.01	5.3
Rice	39.80	3.99	2.73	1.3
Coarse Cereals	62.54	59.19	63.30	-4.1
Pulses	119.19	122.11	112.60	9.5
Oilseeds	95.42	82.04	85.16	-3.1
Total	587.94	498.65	489.8	

Cyclicality

Prior to the 1950s, organic manures were almost the only sources of soil and plant nutrition. Owing to a high animal population, farmyard manure (primarily cattle manure) is the most common organic manure. However, the Green Revolution in the 1960s resulted in the advent of modern methods based on high yielding varieties (HYV) seeds and chemical fertilisers. In order to reap the potential of the new HYV seeds, farmers also rapidly increased their use of chemical fertilisers and pesticides. As compared with organic materials, chemical fertilisers result in greater productivity through a significant improvement in crop yields and agricultural production.

The major demand determinants of fertiliser demand are input prices, output prices, area under HYV seeds, area under irrigation, availability of credit and farm size distribution. There is a strong empirical correlation between the area under HYV and area under irrigation, and fertiliser consumption. In fact, the fertiliser consumption per hectare (ha) is often considered a proxy for the level of modernisation of agriculture. A higher level of modernisation signifies assured irrigation, use of HYV seeds and employment of modern practices such as use of fertilisers, pesticides, and farm machinery.

Nutrient Consumption of Fertilisers and Share

FY	Consumption (thousand tonnes)			Share		
	N	P	K	N	P	K
1994	8,788	2,669	909	71.1%	21.6%	7.3%
1999	11,354	4,112	1,332	67.6%	24.5%	7.9%
2003	10,474	4,019	1,601	65.1%	25.0%	9.9%
2004	11,077	4,124	1,598	65.9%	24.6%	9.5%
2005	11,714	4,624	2,061	63.7%	25.1%	11.2%
2006	12,723	5,204	2,413	62.6%	25.6%	11.9%
2007	13,773	5,543	2,335	63.6%	25.6%	10.8%
2008	14,419	5,515	2,636	63.9%	24.4%	11.7%
2009	15,222	6,572	3,358	60.5%	26.1%	13.4%

Source: Ministry of Chemicals and Fertilisers and IMaCS Analysis

Fertiliser demand is at 520.45 lakh tonnes for the year 2009-10. The demand during Kharif 2009-10 was at 254.70 lakh tonnes and 265.75 lakh tonnes for Rabi.

India's Installed Capacity and Production of Fertilisers

Thousand tonnes of nutrients

FY	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10*
Nitrogenous fertilisers							
Production	10,634	11,338	11,354	11,578	10,900	10,870	11,968
Imports	132	411	1,385	2,689	3,677	3,844	3,085
Consumption	11,076	11,714	12,723	13,774	14,419	15,090	7,486
Phosphatic fertilisers							
Production	3,631	4,067	4,221	4,517	3,807	3,464	4,352
Imports	338	296	1,122	1,322	1,391	2,927	2,499
Consumption	4,124	4,624	5,204	5,543	5,515	6,506	4,132
Potassic fertilisers**							
Imports	1,548	2,045	2,747	2,069	2,653	3,380	2,539
Consumption	1,598	2,060	2,413	2,335	2,636	3,313	1,607
All fertilisers (NPK)							
Production	14,265	15,405	15,575	16,905	14,707	14,334	16,320
Imports	2,018	2,752	5,254	6,080	7,721	10,151	8,123
Consumption	16,798	18,398	20,340	21,652	22,570	24,909	13,225***

Source: Ministry of Chemicals & Fertilisers, Department of Fertilisers; Compiled by IMACS

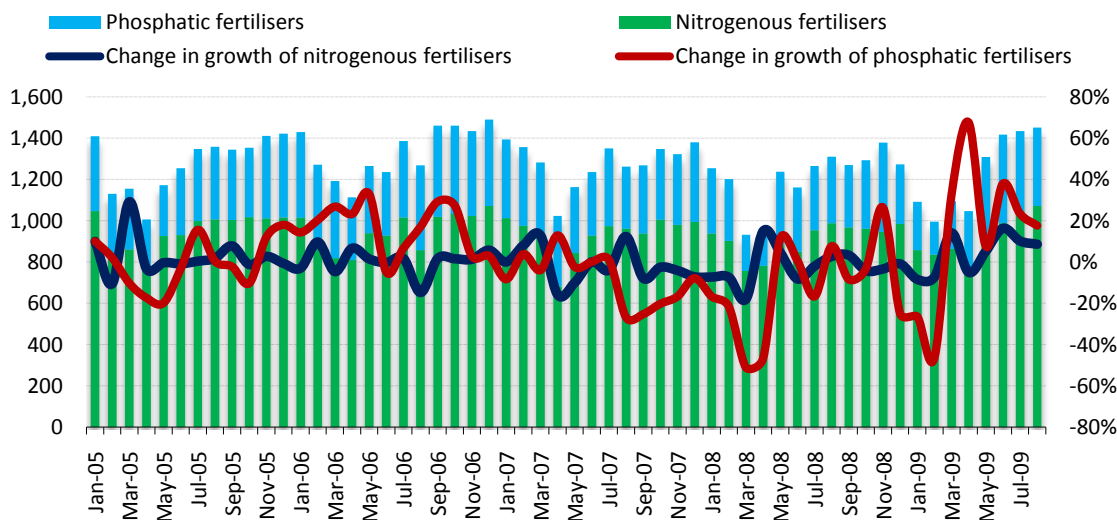
*Estimated (Production figures are considered actual for April-December 2009 and estimated for January 2010-March 2010)

**The entire demand of potassic fertilisers is met through import

***Consumption figures of 2009-10 relates to Kharif season 2009.

Growth in Fertiliser Production

year on year (yoy)



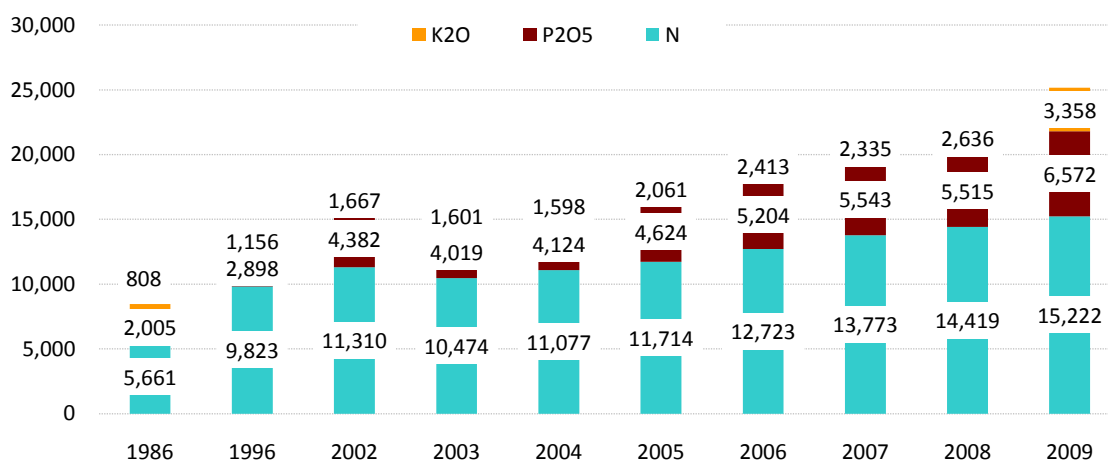
Source: IMaCS Analysis

During FY2009, the contributions of Nitrogen, Phosphorus and Potassium to the total nutrient consumption of 25.15 mt in the country were 60.5%, 26.1% and 13.4%, respectively. The high share of Nitrogen fertiliser consumption is primarily because of the fact that nitrogen deficiency in Indian soils is almost universal. In the Indo-Gangetic plains, medium-high yields cannot be obtained anywhere without Nitrogen application. Phosphorus deficiencies are also high with Phosphorus fertility being low or medium in nearly 95% of districts. Potassium deficiencies have also increased because of depletion of soil potassium, especially in the Indo-Gangetic plains. Sulphur deficiency is also an important problem in many states and soils in large number of districts of the Indo-Gangetic Plains are considered to be suffering from Sulphur deficiency to varying extents.

During August 2009, the production of Nitrogen fertilisers registered a yoy growth of 8.5%, while phosphatic fertilises production registered a yoy growth of 5.8%.

Nutrient Content of India's Fertiliser Consumption

FY, Thousand tonnes



Source: IMaCS Analysis

Because of the widespread deficiency of Nitrogen, the fertiliser consumption ratio has favoured N nutrients. However, the share of Nitrogen has declined from 71% in FY1996 to 60.5% in FY2009.

The intensity of fertiliser consumption varies greatly between various regions. Amongst the major crop producing states, fertiliser consumption varies from 48.9 kg/ha in Rajasthan to 221 kg/ha in Punjab.

Production and import of fertilisers

(in lakh MT)

Year	Production			Imports		
	2007-08	2008-09	2009-10*	2007-08	2008-09	2009-10**
Urea	198.6	199.2	212.4	69.3	56.7	44.9
DAP	42.1	29.9	43.0	29.9	61.9	55.6
Complex fertilisers	58.5	68.5	79.2			
MOP	Nil	Nil	Nil	44.2	56.7	42.3

Source: Department of Fertilisers

*estimated; **April-December 2009

The availability of raw materials and intermediates has been a major bottleneck in the domestic production of fertilizers. As there is no domestic production of MOP, its requirement is met fully by import. About 85% of raw materials in DAP or finished DAP and complexes are also being imported.

Fertiliser Consumption in nutrient terms during 2005-06 to 2009-10

(in lakh tonnes)

Product	2005-06	2006-07	2007-08	2008-09	2009-10 (only kharif*)
Nitrogenous (N)	127.23	137.73	144.19	150.90	74.86
Phosphatic (P)	52.04	55.43	55.15	65.06	41.32
Potassic (K)	24.13	23.35	26.36	33.13	16.07
Total (N+P+K)	203.40	216.51	225.70	249.09	132.25
Per hectare consumption (kg)	105.5	111.80	116.80	128.6	-

Source: Department of Fertilisers *Estimated

Key Players in the Indian Fertilisers Industry

(In random order)

1	United Phosphorous
2	Rallis India
3	Tata Chemicals
4	Chambal Fertilisers
5	RCF
6	Advanta India
7	Coromandel Fertilizers
8	Aries Agro Ltd.
9	DCM Shriram
10	Gujarat State Fertilisers and Chemicals

11	Zuari Industries
12	National Fertilisers

Performance of fertiliser companies during Q3FY2010

During Q3FY2010, net sales of the fertiliser industry declined by a sharp 30% compared to a year ago. This is due to the fall in subsidy income. Since fertiliser subsidy is given on a cost-plus basis, a sharp fall in input cost of the industry has resulted in a dip in the subsidy income. Material expenses declined by about 34%. The lower raw material expenses have enabled the industry to reduce its working capital requirements. In spite of the sharp fall in the two major cost components of the industry, the total expenses fell by 27%, slower than the fall in income. The reason for this is that a

	Income (Rs. Cr.)	Sales (Rs. Cr.)	PBDIT/Income (%)		PAT/Income (%)	
			Q3FY2009	Q3FY2010	Q3FY2009	Q3FY2010
Coromandel International	1,793.2	1,756.8	6.5	13.6	3.5	8.1
Rashtriya Chemicals & Fertilisers	1,637.4	1,606.6	6.2	8.8	3.0	4.3
Tata Chemicals	1,550.6	1,541.9	3.8	16.3	0.2	6.6
National Fertilisers	1,464.3	1,460.6	7.2	5.4	3.1	2.5
Gujarat State Fertilisers & Chemicals	1,154.2	1,146.1	14.9	18.5	8.5	9.8
Chambal Fertilisers & Chemicals	1,154.2	1,146.1	16.5	17.1	5.6	6.9
Zuari Industries	1,113.1	1,106.8	1.8	4.1	0.8	2.2

part of the expenses were incurred on the unsold goods lying with the fertiliser companies. Total expenses corresponding to goods sold fell by about 31%. The PBDIT margin expanded by 5% to 12% compared to 7% during the previous quarter. Net margin increased to 5% compared to 2% a year ago.

Chemicals – Major Segments

The major sub-segments of the chemical industry are as follows:-

- Petrochemicals
- Organic Chemicals
- Inorganic Chemicals
- Alkali Chemicals
- Pesticides
- Dye and Dyestuff

Petrochemicals

Petrochemicals are chemical products made from raw materials of petroleum (hydrocarbon) origin. The distillation of crude oil yields naphtha, gas oil, natural gas (NG), and petroleum gases which are mainly used as feedstock by the petrochemicals industry. The petrochemical industry mainly

comprises of synthetic fibres, polymers, elastomers, synthetic detergents intermediates and performance plastics.

Petrochemical products permeate the entire spectrum of daily use items and cover almost every aspect of life, ranging from clothing, housing, construction, furniture, automobiles, household items, toys, agriculture, horticulture, irrigation, packaging to medical appliances etc. There are three naphtha-based and three gas-based cracker complexes in the country with a combined ethylene annual capacity of 2.9 million MT. Besides, there are four aromatic complexes also with a combined Xylenes capacity of 2.9 million MT.

The production of polymers accounted for almost 62% of the total production of major petrochemicals during 2008-09. The domestic capacity of polymers was 5.72 million MT during 2008-09. With 88.5% capacity utilisation, production of polymers during 2008-09 at the level of 5.06 million MT was attained. The domestic production capacity of synthetic fibres was 3.46 million MT during 2008-09. With capacity utilisation of about 73%, production at the level of 2.52 million MT was achieved. The production of petrochemicals grew at 5.8% annually during 2002-03 to 2007-08. Registering the impact of the global meltdown, it declined by 5.5% in 2008-09. During April-December 2009, major petrochemicals except polymers recorded positive growth of 0.76%; performance plastics and synthetic fibres registered impressive growth².

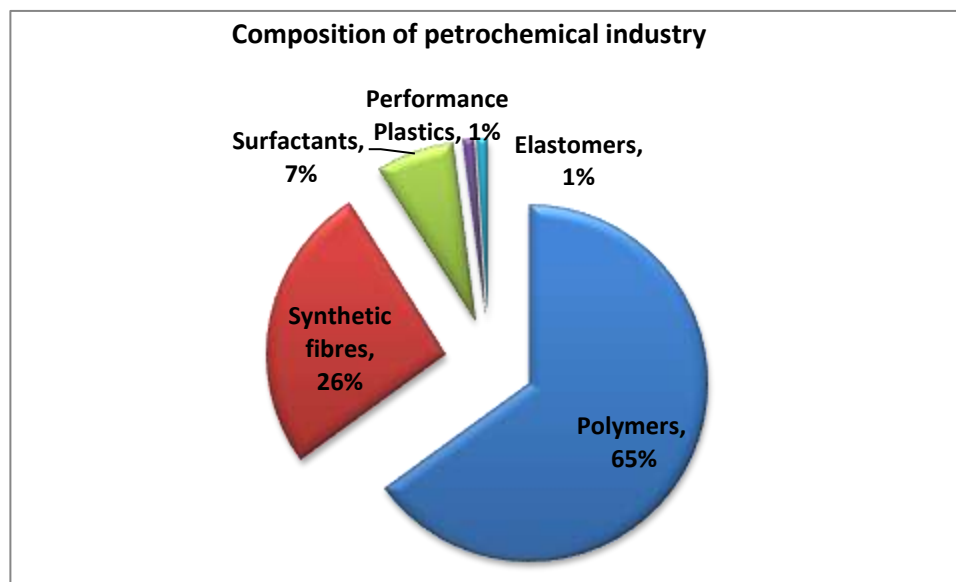
Production of Major Petrochemicals

Year	Synthetic fibres	Polymers	Elastomers	Synthetic detergent intermediaries	Performance plastics	Total major petrochemicals
2005-06	1906	4768	110	555	127	7466
2006-07	2250	5183	101	556	133	8223
2007-08	2524	5304	105	585	157	8675
2008-09	2343	5060	96	552	141	8192
2009-10 (Apr-Dec)	1948	3549	79	461	129	6166

Source: Department of Chemicals & Petrochemicals

While India can boast of having a significant number of steam crackers (both naphtha and NG based), it has only one world class aromatics unit—Reliance Industries Limited (RIL)'s unit at Jamnagar in Gujarat.

² Economic Survey 2009-10



Source: Ministry of Chemicals & Fertilisers, IMaCS Analysis

Organic Chemicals Industry in India

Organic Chemicals

Organic chemicals are a group of petroleum-derivative chemicals (also known as petrochemicals) used as intermediates to produce other chemicals, which, in turn, are used to manufacture a wide variety of end-use products, including construction materials, apparel, adhesives, plastics, and tyres. The majority of the organic chemicals are derived from benzene, a petroleum derivative. The key organic chemicals are acetic acid, methanol, formaldehyde, acetaldehyde, chloromethane, phenol, benzene and its derivatives (that include nitrobenzene, aniline, ortho nitro chlorobenzene or ONCB, para nitro chlorobenzene or PNCB). Although the sector's contribution to the GDP is insignificant, the industry derives its importance from the fact that it caters to a host of end user industries such as paints and dyestuff, fertilisers, textile, pharmaceuticals, insecticides and pesticides, food processing, leather, paper, detergent, explosives, rubber chemicals, cigarette, etc.

Cyclicality

There is a moderate amount of cyclicality in the industry (especially in the bulk chemicals business) as reflected by the significant year on year variation in production and consumption of four key organic chemicals—acetic acid, methanol, acetic acid, formaldehyde and phenol.

India's organic chemicals production was estimated at around 1,736 kilotonnes (kt) or 1.74 million tonnes (mt) during FY2008.

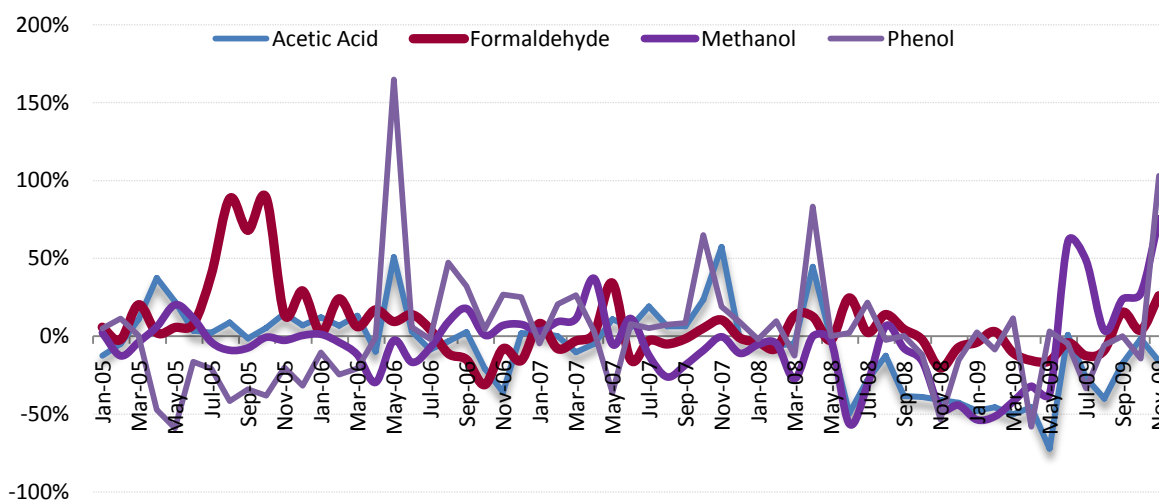
Production of Major Organic Chemicals

'000 MT

	2003	2004	2005	2006	2007	2008
Methanol	362	389	392	387	396	377
Acetic Acid	252	308	288	306	288	373
Formaldehyde	182	199	196	249	235	274
Acetaldehyde	126	127	140	159	164	208
Chloromethanes	79	90	92	94	92	99

Source: Ministry of Chemicals and Fertilisers, IMaCS analysis

Monthly Production Growth of Major Organic Chemicals



Compiled by IMACS

Acetic acid is an important chemical reagent and industrial chemical that is used in the production of polyethylene terephthalate mainly used in soft drink bottles; cellulose acetate, mainly for photographic film; and polyvinyl acetate for wood glue, as well as many synthetic fibres and fabrics. In the food industry, acetic acid is used under the food additive code as an acidity regulator. In the form of vinegar, acetic acid solutions (typically 5-18% acetic acid) are used directly as a condiment, and also in the pickling of vegetables and other foodstuffs. During FY2009, production of acetic acid declined 30.7% to 218.66 kt. The decline continued in 8MFY2010 (April-November 2009) with a 34% (yoy) decline in production to 105.90 kt.

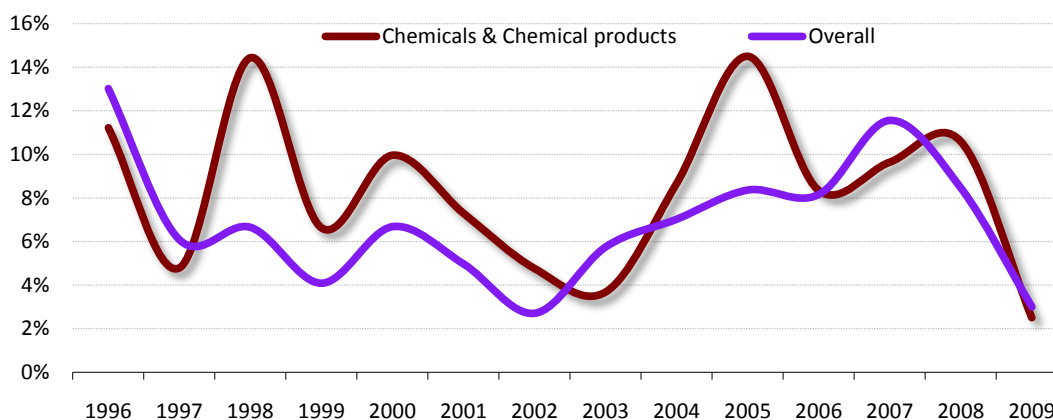
Most formaldehyde is used in the production of polymers and other chemicals. When combined with phenol, urea, or melamine; formaldehyde produces a hard thermoset resin commonly used in permanent adhesives, such as those used in plywood or carpeting. It is used as the wet-strength resin added to sanitary paper products, facial tissue, table napkins, and roll towels. They are also foamed to make insulation, or cast into moulded products. Production of formaldehyde resins accounts for more than half of formaldehyde consumption. Formaldehyde is also used to make numerous other chemicals, used in personal care products such as toothpaste. Production of formaldehyde increased 0.2% in FY2009 to 241.11 kt. However, production declined 2.7% (yoy) in 8MFY2010 to 163.02 kt with an apparent recovery in the latter-half of 2009.

Phenol has antiseptic properties, and is one of the main components of the antiseptic trichlorophenol (TCP). Phenol is also used in the production of drugs (it is the starting material in the industrial production of aspirin), weedkiller, and synthetic resins. It is also used in cosmetic surgery as an exfoliant, to remove layers of dead skin. Production of phenol declined 1.9% in FY2009 to 73.51 kt. However, production declined 8.2% (yoy) in 8MFY2010 to 42.92 kt. Production growth has recovered from Q2FY2010.

Methanol is frequently used as a denaturant additive for ethanol manufactured for industrial uses. It is also used in manufacture of formaldehyde, DMT, methylamines, methylchloride, and methyl methacrylate. It is also used as a solvent for many industries. Production of methanol declined 30.3% in FY2009 to 251.42 kt. Production increased 16.2% (yoy) in 8MFY2010 to 217.94 kt, thereby reversing the sharp decline witnessed in Q1FY2010.

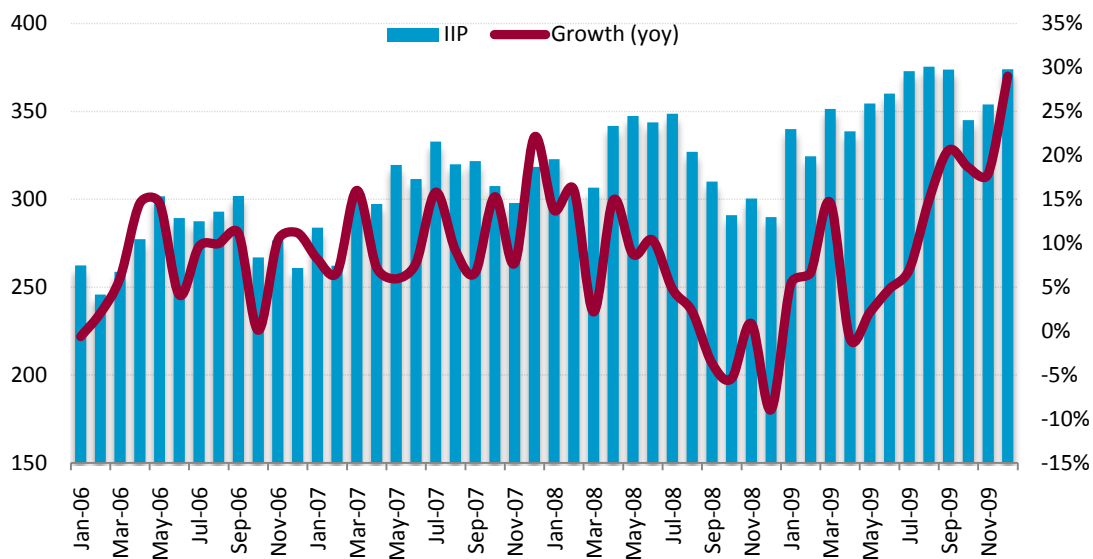
Growth in IIP—Basic Chemicals & Chemical Products and Overall

FY



Compiled by IMACS

IIP for Basic Chemicals and Chemical Products

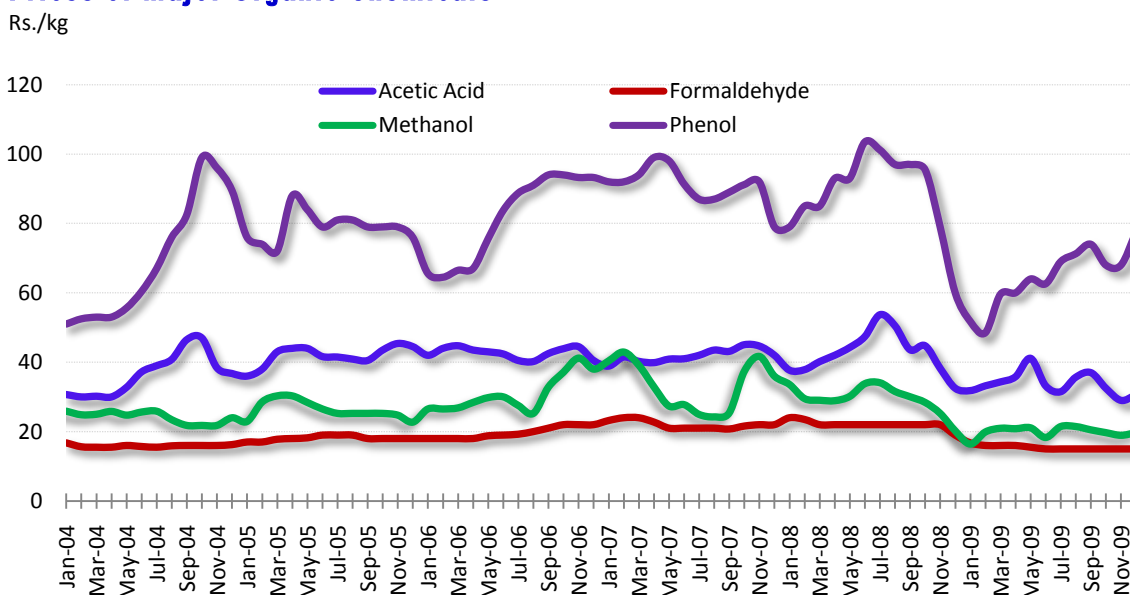


Compiled by IMAcS

The IIP for basic chemicals increased 4.1% during FY2009. However, the IIP had declined since October 2008 primarily because of a slowdown in production of major inorganic chemicals such as carbon black and titanium dioxide. IIP declined 8.8% (yoy) in Q4FY2009, but has since then recovered to 2% (yoy) in Q1FY2010, and 13.8% (yoy) during Q2FY2010.

The IIP for basic chemicals was 374 during December 2009 and had achieved a yoy growth of 29.0% between December 2009 and the previous year and a 10.4% growth between April-December 2009.

Prices of Major Organic Chemicals



Inorganic Chemicals

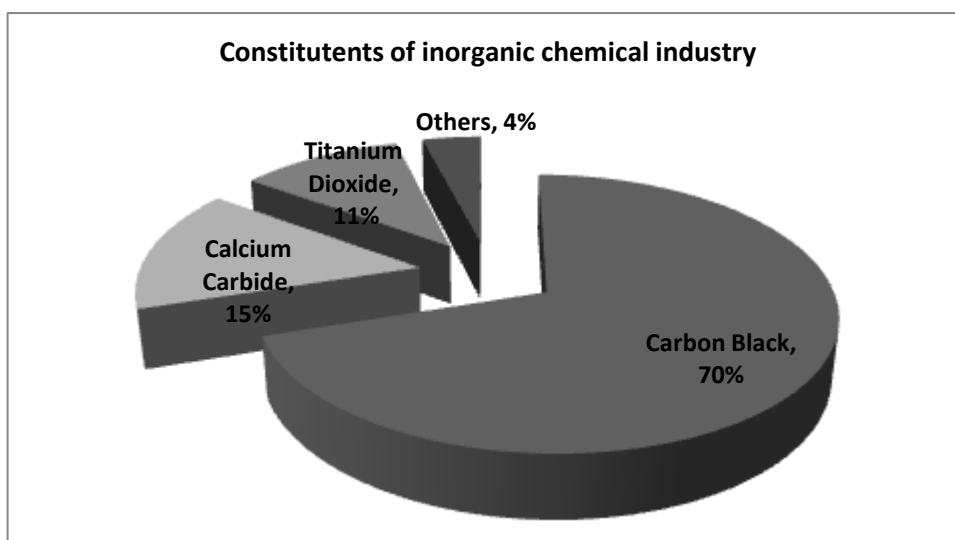
Overview

The key inorganic chemicals are titanium dioxide, carbon black, and calcium carbide. Titanium dioxide is used as white pigment in paints, paper, rubber, and plastics. It is also used in cosmetics, ceramics, enamels, printing inks, etc. Carbon black is used mainly as a reinforcing material in the rubber industry. Other user areas include inks, paints, plastic and paper. Calcium Carbide is used in the production of Acetylene, which in turn is used in the manufacture of poly vinyl chloride (PVC). The production of Calcium Carbide involves power intensive process and there is only one unit engaged in the manufacture of Calcium Carbide. Calcium carbide is also used in carbide lamps, which find use in coal mines.

Other inorganic chemicals include aluminium fluoride, potassium chlorate, red phosphorous, and sodium chlorate. Potassium chlorate is used mainly as oxidising agent in chemical processes. It is also used in explosives, pyrotechnics, matches, textiles, printing, paper, etc. Red phosphorous is used in the manufacture of safety matches and phosphorus compounds.

Although the sector's contribution to the GDP may appear to be insignificant, the industry derives its importance from the fact that it caters to a host of end user industries such as paints and dyestuff, tyres, leather, paper, detergent, explosives, rubber chemicals, cigarette, etc.

India's Inorganic chemicals production was around 690 kilotonnes (kt) or 0.69 million tonnes (mt) during FY2008.



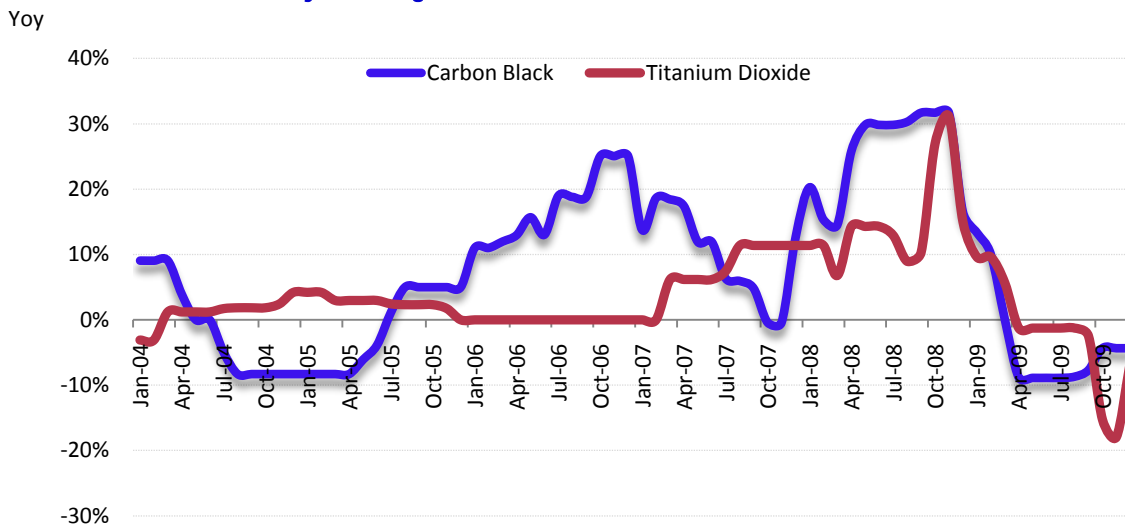
Source: Ministry of Chemicals & Fertilisers, IMaCS Analysis

Cyclicality

There is a moderate amount of cyclicality in the industry (especially in the bulk chemicals business) as reflected by the significant year on year variation in production of key inorganic chemicals—titanium

dioxide, carbon black, and calcium carbide. These three chemicals account for around 96% of India's production of inorganic chemicals.

Growth in WPI for Major Inorganic Chemicals



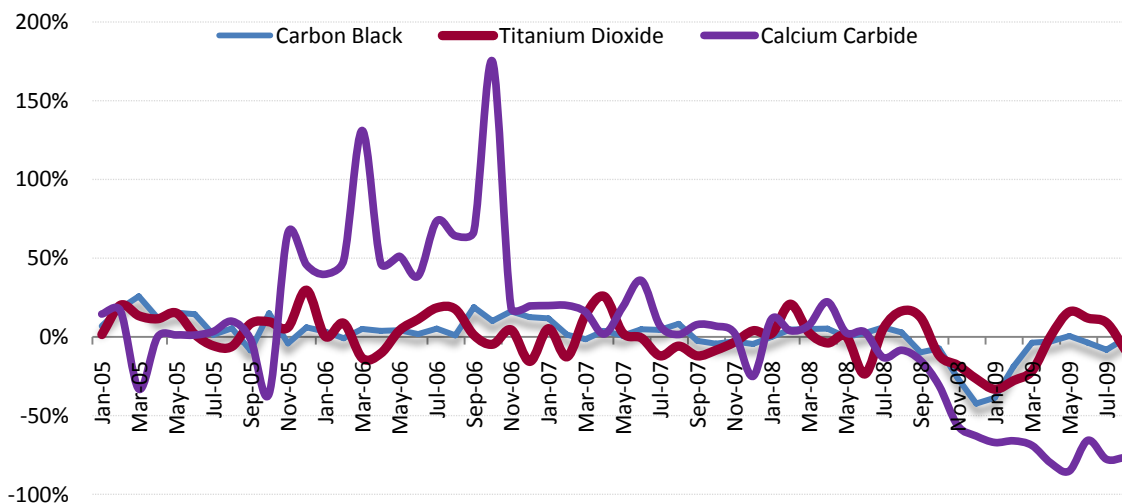
Compiled by IMACS

Growth Potential/Outlook

During FY2009, production continued to grow at a strong rate in the first half, but subsequently declined.

- Titanium dioxide production declined 11.7% (yoy) to 55,063 tonnes.
- Carbon black production declined 10.9% to 382,004 tonnes.
- Calcium carbide production declined 30.4% (yoy) to 67,826 tonnes.

Growth in Production of Major Inorganic Chemicals



Compiled by IMACS

Being an intermediate for a host of industries, demand for inorganic chemicals is related to the demand growth in the end user industries such as paints and tyres.

Carbon black is the largest segment of the inorganic chemicals industry. Production and consumption of carbon black has increased at a high rate in recent years because of increased tyre production. The tyre industry presently consumes around 65% of total production. Carbon black, which accounts for 35% by weight and 16% by the value of raw materials used for making automobile tyres, follows the growth trends in the tyre industry. India's tyre production is estimated to have increased only 1.2% in FY2009, as compared with a 3-year CAGR of 10.5% during FY2006-08. Tyre production growth is expected to be stagnant in the first half of FY2010. Future growth in tyre production is expected to be healthy driven by moderate growth in automotive production, increased replacement demand, and higher exports.

Titanium dioxide has been witnessing fluctuating production trends since March 2009 onwards.

The third major inorganic chemical—calcium carbide—has witnessed reduced production over the last few years. It is used in carbide lamps, in which water drips on carbide and the formed acetylene is ignited. The lamps found extensive use in coal mines, but most have now been replaced by electric lamps. Carbide lamps are still used by some cavers exploring caves and other underground areas.

Alkali Chemicals

The Chloro Alkali industry consists of Soda Ash, Caustic soda and liquid chlorine. Glass manufacturing is the largest application for soda ash. Caustic soda, finds use in various applications, such as, finishing operations in textiles, manufacture of soaps and detergents, control of pH (softening) of water for various applications and general cleansing / bleaching applications. Liquid chlorine is used primarily for various bleaching applications, across paper and pulp, textiles and other industries.

Production of Alkali Chemicals

Chemical	Production (2008) (In '000 MT)
Soda Ash	2024.7
Caustic Soda	2160.3
Chlorine	1914

Source: Alkali Manufacturers' Association of India

The share of chemicals and petrochemicals in total national exports diminished from 11.6% to 9.3% during 2003-04 to 2008-09. Likewise, imports of this group in total national imports declined from 9.2% to 7.2% during 2003-04 to 2008-09.

Performance of alkali manufacturing companies during Q3FY2010

During Q3FY2010, total revenues of the caustic soda industry fell by 9.2% compared to the quarter during the previous year. The net margin of the industry contracted to 3.8% from 8.5% during this quarter. Aggregate net sales of seven caustic soda companies fell by 12% in this quarter compared to the same quarter a year ago. Though demand for caustic soda is healthy, a sharp fall in prices due to increase in supplies has pulled down the per unit realisation of the companies, thus adversely

Chemicals and Fertilisers

affecting revenue growth. Sales fell by about 12% and raw material expenses fell by 3% during Q3FY2010. Depreciation expenses increased by about 10% during this quarter due to commissioning of new capacities. This has aggravated the fall in net profits to 59% compared to the same quarter a year ago. The top two companies (with a turnover of over Rs. 100 crore per quarter) registered a contraction in their profit margin.

During Q3FY2010, the aggregates sales of the alkali manufacturing companies were pulled down because of a 20% fall in soda ash prices. The PBDIT of the industry grew by 7% during this quarter after having fallen during the previous four quarters.

Performance of top chemical companies in India during Q3FY2010

	Income (Rs. Cr.)	Sales (Rs. Cr.)	PBDIT/Income (%)		PAT/Income (%)	
			Q3FY2009	Q3FY2010	Q3FY2009	Q3FY2010
Gujarat Alkalies & Chemicals	323.3	321.1	23.8	17.8	9.8	6.0
Sree Rayalseema Alkalies & Allied Chemicals	130.1	112.9	17.7	18.9	7.0	5.2
Aditya Birla Chemicals (India)	48.2	46.6	37.9	23.4	23.7	8.2
Punjab Alkalies & Chemicals	37.9	37.7	0.3	-8.6	-7.7	-19.6
Lords Chloro Alkali	29.1	29.1	-3.1	-8.2	-6.2	-10.7
Chemfab Alkalies	22.0	21.6	24.8	23.8	10.4	7.7
Jayshree Chemicals	12.4	12.3	19.4	23.4	10.3	12.9
GHCL	293.4	290.1	20.2	23.4	5.7	7.6
Saurashtra Chemicals	50.4	49.4	3.8	-6.8	-1.1	-16.1
Tuticorin Alkali Chemicals & Fertilisers	1.7	1.7	-75.5	-193.9	-147.1	-359.4

Estimation of performance of alkali manufacturing companies during Q4FY2010

During Q4FY2010, net sales of the caustic soda companies are expected to fall by 6% when compared to the same quarter a year ago. A fall in realisations due to a sharp fall in caustic soda prices (yoy) will continue to drag down the aggregate revenues of the industry. The double effect of lower revenues and higher expenses will continue to put pressure on the profitability of the industry during this quarter. Total income is expected to fall by 6% and raw material expenses are expected to rise by 15%.

Aggregate net sales of soda ash companies are expected to fall by 8% during Q4FY2010 when compared to the same quarter a year ago. Soda ash production is expected to grow by 4% due to recovery in demand from the glass and detergent industry.

Pesticides

The pesticides/agrochemicals industry (PAC) is a moderately important sector of the Indian economy. The PAC industry primarily consists of insecticides, herbicides and fungicides. India is one of the most dynamic generic pesticide manufacturers in the world with more than 60 technical grade pesticide being manufactured indigenously by 125 producers consisting of large and medium scale enterprises (including about 10 multinational companies) and more than 500 pesticide formulators spread over the country. India is the 4th largest producer of agrochemicals after USA, Japan and China. The agrochemicals market in India is Rs. 45,000 million or US\$978 million.

The Indian PAC industry primarily comprises of insecticides, fungicides, and herbicides/weedicides. Insecticides dominate consumption with around 62% of estimated consumption of PAC, followed by herbicides/weedicides (18%), fungicides (15%), and others (4%). Insecticides are used mainly for rice, cotton and vegetables; herbicides for rubber, oil palm, tea, and coffee; and fungicides for tobacco, vegetables, and bananas. Cotton, paddy/rice, vegetables and fruits account for over 80% of the pesticide consumption in the country.

The pesticide consumption in India for every hectare is 0.33 kg. In comparison, the pesticide consumption in France is 3.07 kg a hectare, 4.17 kg in France, 13.1 kg in Japan and over 15 kg in the US, the UK and Canada³.

Performance of pesticide companies during Q3FY2010

The pesticide industry grew by 40% in PBDIT and a 150% net profit growth during Q3FY2010. The growth came after three consecutive quarters of decline and is also broad-based. The industry's sales were higher by 10% during this quarter compared to the same period a year ago. The industry suffered a 3% fall in sales during the previous quarter. Raw material cost, the highest cost component was down by 11%. This along with rise in other expenses pushed up the PBDIT by 40%.

Performance of top pesticides companies in India during Q3FY2010

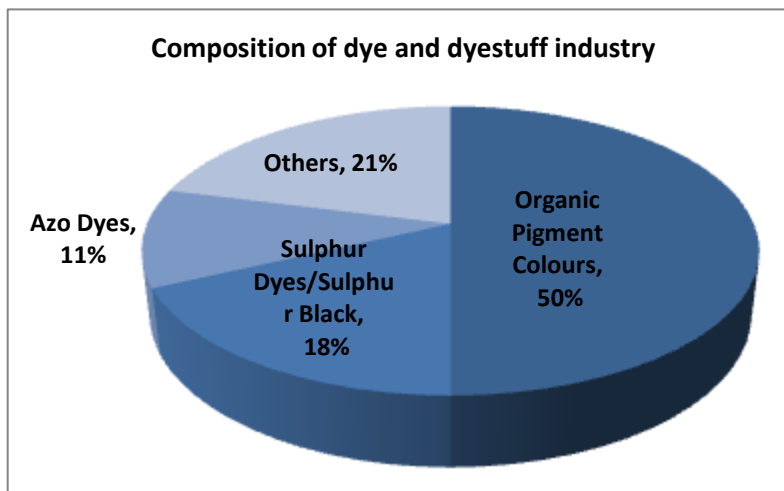
	Income (Rs. Cr.)	Sales (Rs. Cr.)	PBDIT/Income (%)		PAT/Income (%)	
			Q3FY2009	Q3FY2010	Q3FY2009	Q3FY2010
United Phosphorus	664.6	649.3	12.9	19.8	0.9	11.7
Bayer Cropscience	389.1	385.5	8.1	10.9	2.1	5.5
Rallis India	209.5	206.8	13.5	20.6	7.5	11.5
Meghmani Organics	190.7	190.7	16.4	18.5	8.8	11.8
Nagarjuna Agrichem	174.6	171.4	24.8	21.2	11.3	10.5

Dye and Dyestuff

The Dyestuff sector is one of the important segments of the chemicals industry in India, having forward and backward linkages with a variety of sectors like textiles, leather, paper, plastics, printing

³ Business Line dated May 29, 2009

inks and foodstuffs. The textile industry accounts for the largest consumption of dyestuffs and thus the consumption of Dyes and Dyestuffs is closely related to the performance of the textile industry. India has emerged as a global supplier of dyestuffs and dye intermediates, particularly for reactives, acid, vat and direct dyes. India accounts for 7% of the world production. Organic pigment colours account for the largest share of dye industry followed by sulphur dyes and Azo dyes.

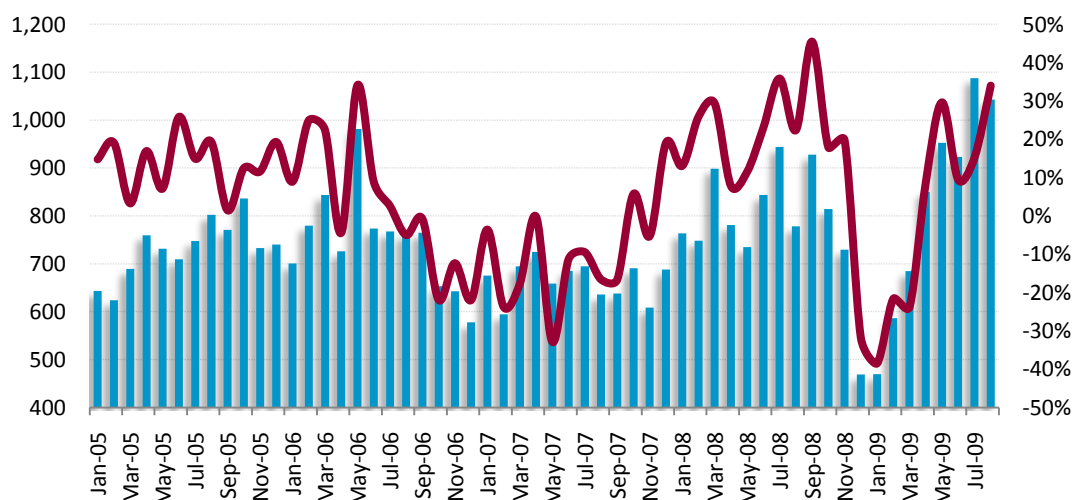


Source: Ministry of Chemicals & Fertilisers, IMAcS Analysis

Production of Reactive Dyes including Whitening Agents declined 2.1% in FY2008 to 8,440 tonnes, as compared with a decline of 8.1% in FY2007. During FY2009, production increased 3.9% to 8,769 tonnes. During 5MFY2010 (April-August 2009), production growth improved with production increasing 19% (yoy) to 4,858 tonnes.

Production of Reactive Dyes and Optical Whitening Agents

Thousands

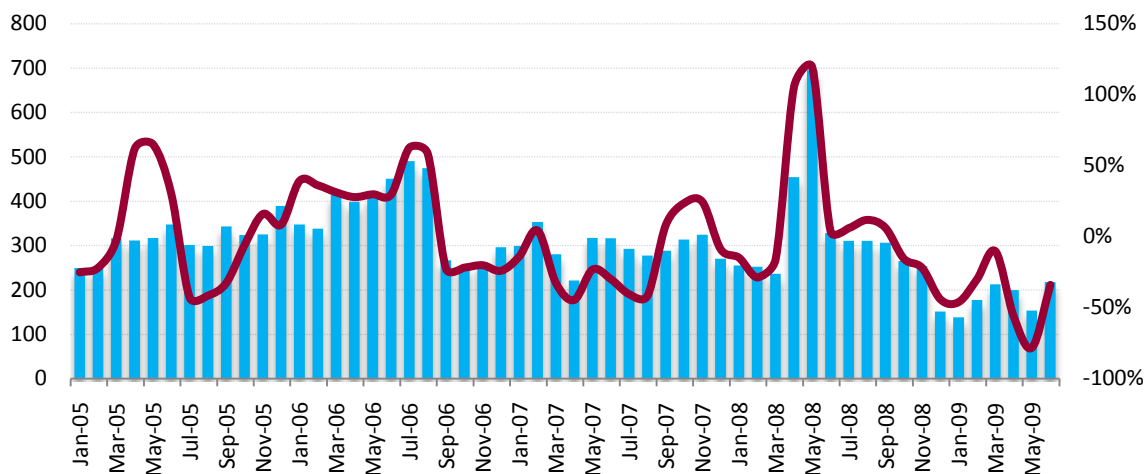


Production of Azo Dyes declined 20.6% in FY2008 to 3,361 tonnes, as compared with an increase of 4.3% in FY2007. During FY2009, production increased 7.1% to 3,599 tonnes. However, production

growth has slowed down from Q3FY2009, with production declining 48% (yoy) in 5MFY2010 to 1,090 tonnes.

Production of Azo Dyes

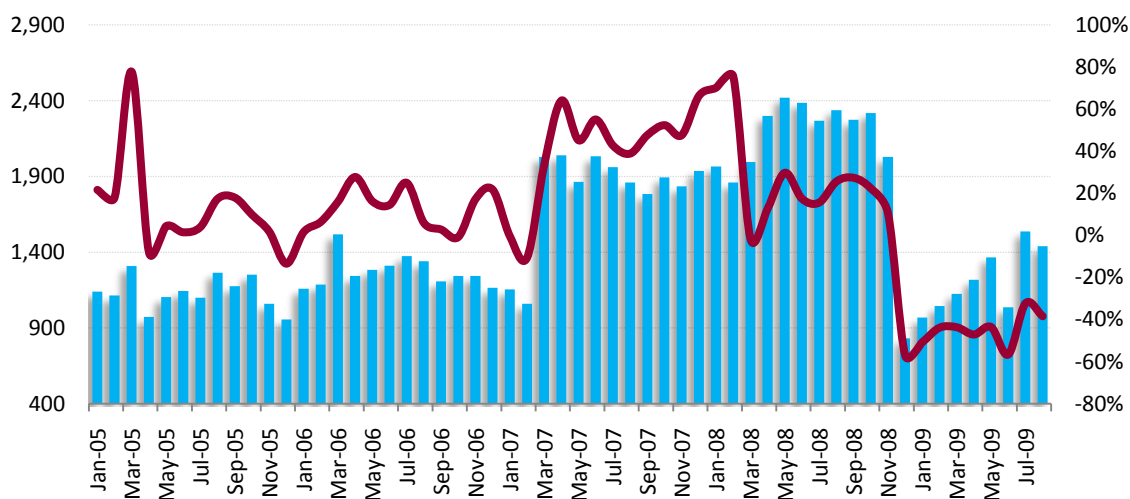
Thousand tonnes



Production of Organic Pigments increased 47.1% in FY2008 to 23,020 tonnes, as compared with an increase of 12.7% in FY2007. During FY2009, production declined 3.1% to 22,295 tonnes because of a sharp decline in the latter half of FY2009. Production declined 43.7% (yoy) in 5MFY2010 to 6,595 tonnes.

Production of Organic Pigments

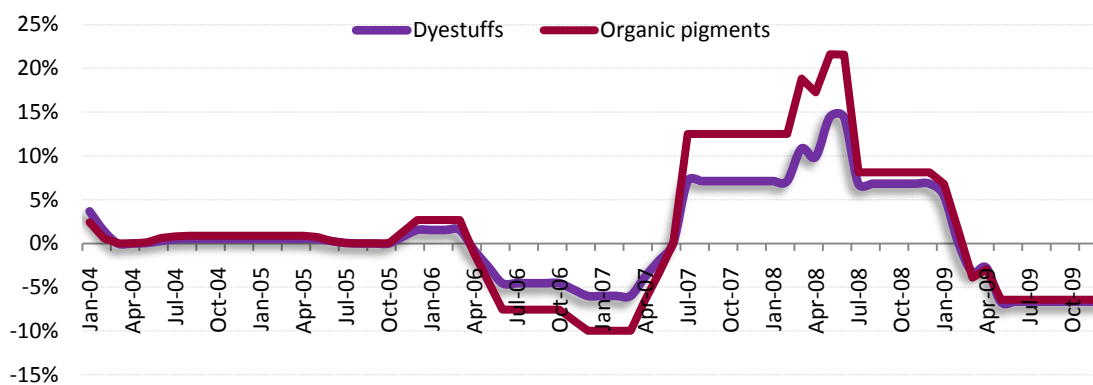
tonnes



The prices of dyestuffs and pigments had been on a downward trend during FY2007. The Wholesale Price Index (WPI) had declined 4.6% in FY2007, as compared with an increase of 0.6% in FY2006, and 0.5% in FY2005. WPI for the largest segment—organic pigments—declined 7.8% in FY2007, compared with an increase of 1.2% in FY2006. However, prices have increased in FY2008, and the WPI for

dyestuffs and organic pigments increasing by 4.9% and 8.6%, respectively. During FY2009, the yoy WPI increase for dyestuffs and organic pigments was 6.8% and 8.1%, respectively. Prices have declined further in FY2010. By December 2009, prices of dyestuffs and organic pigments had declined 6.6% (yoy) and 6.4% (yoy), respectively.

Monthly Change in WPI



Exports and Imports

(Value in Rs. crore)

Items	2006-07	2007-08	2008-09
Exports:			
(a) Chemicals	39,351	43,482	53,738
(b) Petrochemicals	21,801	22,199	24,226
(c) Sub-total (a+b)	61,152	65,681	77,964
Imports:			
(a) Chemicals	47,914	54,422	74,857
(b) Petrochemicals	16,339	18,677	24,020
(c) Sub-total (a+b)	64,253	73,099	98,877

Source: Department of Chemicals & Petrochemicals

INVESTMENTS AND PROJECTS

FDI Flows in Chemicals (except fertilisers)

In Rs. Billion

Year/Industry	2006-07 (Apr-Mar)	2007-08 (Apr-Mar)	2008-09 (Apr-Mar)	2009-10 (Apr-Dec'09)	Cumulative Inflows (Apr'00-Dec'09)
Chemicals (other than fertilisers)	9.3	9.2	34.3	12.6	108.3

Source: Department of Industrial Policy & Promotion

Investments

The project costs of many of the Investments in chemicals and fertiliser projects in the five southern states of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and Pondicherry are not available. These investments include existing, planned, projects under execution and those deferred. Ownership wise, it is the private sector firms that own a large portion of 90% of the total investments.

Of these, investments by Indian entities account for about 92% while the balance is from foreign firms. State governments have a small share of investments of about 3%. Although, investment values of over half of the projects are unavailable, going by the number of projects, it is the private sector that dominates total investment in the sector.

About 23% of the investments are in the planning stage. They have been announced by the private sector, state and central government sectors. These projects in the planning stage are located, mainly, in Andhra Pradesh. Karnataka and Tamil Nadu have almost the same number of projects. Outstanding investments at the end of Q3FY2010 stood at Rs. 377,610 million spread across 38 projects.

Chemicals and Fertiliser Project Investments in Southern India

Number of Projects

	Completed	Deferred	Planning	Stalled	Under Execution	Total
AP	15	2	12	-	12	41
Kerala	1	1	1			3
TN & Pondy	14	-	2	1	2	19
Karnataka	8	1	3	-	2	14
Total	38	4	18	1	16	77

As can be seen from the above table, about 18% of the investments are under execution. About 39% of the projects have been completed and 32% of the investments are under planning stage. The numbers of deferred and stalled investments are very less at 11%.

As can be seen from the tables below, quite some projects with substantial investments have been deferred for the time being. However, many major expansion projects are still being implemented.

Major Chemicals and Fertilisers Projects in Southern States

Project Name :	Promoter :	Cost (Rs. Million) :	Ownership :	Implementation Stage :
Karnataka				
Naphtha Cracker Project	Videocon International Ltd.	48,000.0	Videocon Group	Deferred
Chemicals (Bidar) Project	Vivimed Labs Ltd.	200.0	Private (Indian)	Under Execution
Aroma Chemical Plant	Organica Aromatics (Bangalore) Pvt. Ltd.	50.0	Private (Indian)	Completed
Chemicals (Thandya) Project	SVP Industries	45.0	Private (Indian)	Planning
Colour Oil (Motebennur) Project	Kancor Colours Ltd.	15.0	Private (Indian)	Completed
Process Treatment Chemicals (Hoskote) Project	Hercules Inc.	14.1	Private (Foreign)	Completed

Source: Compiled by IMAcS

Project Name :	Promoter :	Cost (Rs. Million) :	Ownership :	Implementation Stage :
Tamil Nadu and Pondicherry				
Arochem Project	Spic Petrochemicals Ltd.	32,300.0	Chidambaram M. A. Group	Stalled
Aluminium Fluoride (Sivaganga) Project	Sterlite Industries (India) Ltd.	1,000.0	Sterlite Group	Planning
Ethylene Di-Chloride (Karaikal) Project	Chemplast Sanmar Ltd.	967.1	Sanmar (Chemplast) Group Central	Completed
Fertilizer Project	Neyveli Lignite Corpn. Ltd.	800.0	Government	Completed
Fatty Acids (Chittarkottai) Project	EID-Parry (India) Ltd.	500.0	Murugappa Chettiar Group	Completed
Thermal Spray Coatings (Palladam) Project	Praxair India Pvt. Ltd.	150.0	Private (Indian)	Completed
Leather Chemicals (Ranipet) Project	Stahl India Pvt. Ltd.	150.0	Private (Foreign)	Completed
Maleic Anhydride (Ranipet) Project	Thirumalai Chemicals Ltd.	100.0	Private (Indian)	Completed
Enzyme (Erode) Project	Esvin Bio-Systems Ltd.	60.0	Private (Indian)	Completed
Emulsion Explosives (Christianpet) Project	Tamil Nadu Industrial Explosives Ltd.	51.7	State Government	Completed
Aromatic Chemical (Ambattur Industrial Estate) Project	Emkay Aromatics Ltd.	49.3	Private (Indian)	Completed
Aromatic Chemical (Alathur) Project	Emkay Aromatics Ltd.	49.0	Private (Indian)	Completed

Chemicals and Fertilisers

L-Cystine (Kolambakkam) Project	Protchem Industries (India) Ltd.	45	Private (Indian)	Completed
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Source: Compiled by IMAcS

Project Name :	Promoter :	Cost (Rs. Million) :	Ownership :	Implementation Stage :
Andhra Pradesh				
Oxo Alcohol (Visakhapatnam) Project	Andhra Petrochemicals Ltd.	3,000.0	Private (Indian)	Under Execution
Chemicals (Visakhapatnam) Project	Kanoria Chemicals & Industries Ltd.	2,000.0	Private (Indian)	Under Execution
Ethanol (Nellore) Project	Rusni Distilleries Pvt. Ltd.	1,200.0	Private (Indian)	Planning
Chemical Complex (Visakhapatnam)	Vivimed Labs Ltd.	1,000.0	Private (Indian)	Planning
R&D Centre (Hyderabad)	E.I.DuPont India Pvt. Ltd.	1,000.0	Private (Foreign)	Completed
Methyl Chloride (Kurnool) Project	Sree Rayalaseema Alkalies & Allied Chemicals Ltd.	950.0	Private (Indian)	Planning
DAP (Kakinada) Project	Godavari Fertilisers & Chemicals Ltd.	825.0	Joint Sector	Planning
Chemicals (Jeedimetla) Project	SMS Pharmaceuticals Ltd.	600.0	Private (Indian)	Under Execution
Chemicals (Achuthapuram) Project	Nagarjuna Agrichem Ltd.	500.0	Private (Indian)	Under Execution
Chemicals (Bollaram) Project	SMS Pharmaceuticals Ltd.	400.0	Private (Indian)	Under Execution
Maleic Anhydride (Visakhapatnam) Project	Virchow Laboratories Pvt. Ltd.	350.0	Private (Indian)	Under Execution
Chemicals (Kovvur) Project - Expansion	Andhra Sugars Ltd.	320.0	Private (Indian)	Planning
Chemicals (Visakhapatnam) Project	SNF India Pvt. Ltd.	300.0	Private (Foreign)	Planning
Organic Chemicals (Medak) Project	Virchow Petrochemical Pvt. Ltd.	250.0	Private (Indian)	Under Execution
Speciality Chemicals (Hyderabad) Project	Vivimed Labs Ltd.	200.0	Private (Indian)	Completed
Poly Aluminium Chloride (Saggonda) Project	Andhra Sugars Ltd.	200.0	Private (Indian)	Under Execution
Pesticides (Maddipadu) Project	J C Biotech Pvt. Ltd.	200.0	Private (Indian)	Planning
Pesticides (Prakasam) Project - Expansion	Bhagiradha Chemicals & Industries Ltd.	183.0	Private (Indian)	Completed
Water Soluble Fertilisers (Kakinada) Project	Coromandel International Ltd.	150.0	Murugappa Chettiar Group	Planning
Chemicals (Medak) Project	ITW India Ltd.	80.0	Private (Indian)	Under Execution
Chemicals (Medak) Project	Kekule Pharma Ltd.	70.0	Private (Indian)	Deferred

Chemicals and Fertilisers

Intermediate Chemicals (Visakhapatnam) Project	Mahidhara Chemicals Pvt. Ltd.	52.4	Private (Indian)	Completed
Fertilisers (Vuyyuru) Project	KCP Sugar & Industries Corpn. Ltd.	50.0	KCP Group	Completed
Pesticides (Nidadavole) Project	Krishna Industrial Corpn. Ltd.	41.0	Private (Indian)	Completed
Chlorpyriphos (Cheruvukommupalem) Project	Bhagiradha Chemicals & Industries Ltd.	40.0	Private (Indian)	Completed
Microbial Bio-pesticides (SP Biotech Park) Project	Jasmine Biologicals Pvt. Ltd.	40.0	Private (Indian)	Completed
Glucose (Peddapuram) Project	Sai Agri Industries	30.0	Private (Indian)	Planning
Chloronation Facility (Nuclear Fuel Complex-Hyderabad) Project	Government of India, Department of Atomic Energy	29.0	Central Government	Planning

Source: Compiled by IMaCS

Project Name :	Promoter :	Cost (Rs. Million) :	Ownership :	Implementation Stage :
Kerala				
Petrochemical Complex (Kochi) Project	GAIL (India) Ltd.	70,000.0	Central Government	Deferred
Ethyl Alcohol (Palakkad) Project	Empee Distilleries Ltd.	400.0	Private (Indian)	Planning
Pesticides (Alwaye) Project	Hindustan Insecticides Ltd.	100.0	Central Government	Completed

Source: Compiled by IMaCS

Company Developments

- ❑ Private equity player Bain Capital is investing Rs. 5.8 million in Himadri Chemicals. The issue proceeds would be used to augment capacity, particularly in China and for forward integration as well as power generation.
- ❑ The Gujarat Government plans to reserve 1,000 hectares for the SMEs in the Gujarat Industrial Development Corporation (GIDC)-run industrial estates for leveraging the strengths of State-promoted PSUs for the development of chemical units in SMEs (small and medium enterprises) sector.
- ❑ Tata Chemicals has launched 'Tata Swach' – an innovative water purifier. This product is collaboration between Tata companies such as TCS, Tata Chemicals and Titan industries.
- ❑ Hospira, a US based firm has acquired the generic injectable pharma business of Orchid Chemicals for US\$ 400 million.
- ❑ Reliance Industries plans to fund its acquisition of the world's third-largest petrochemical company
- ❑ Lyondell Basell Industries by selling treasury stock & dipping into its cash reserves without taking any additional debt on its balance sheet.
- ❑ Six companies, namely, Iffco, Kribhco, Rashtriya Chemicals and Fertilisers Limited, Indo-Gulf Fertilisers Limited, Tata Chemicals Limited and Chambal Fertilisers and Chemicals Limited, have asked for assurances on availability of gas before taking final decision on expanding their existing units.
- ❑ Cochin Shipyard Limited (CSL) and Fertilizers and Chemicals Travancore Limited (FACT) have signed a Memorandum of Agreement (MoU) for joint operation of FACT Engineering Works (FEW).
- ❑ Chennai Petroleum Corporation (CPCL), a subsidiary of Indian Oil is planning to set up a new refinery in southern India. It has already commissioned a study for the feasibility of a 15 million tonne a year refining plant along with a petrochemicals complex in Cuddalore.

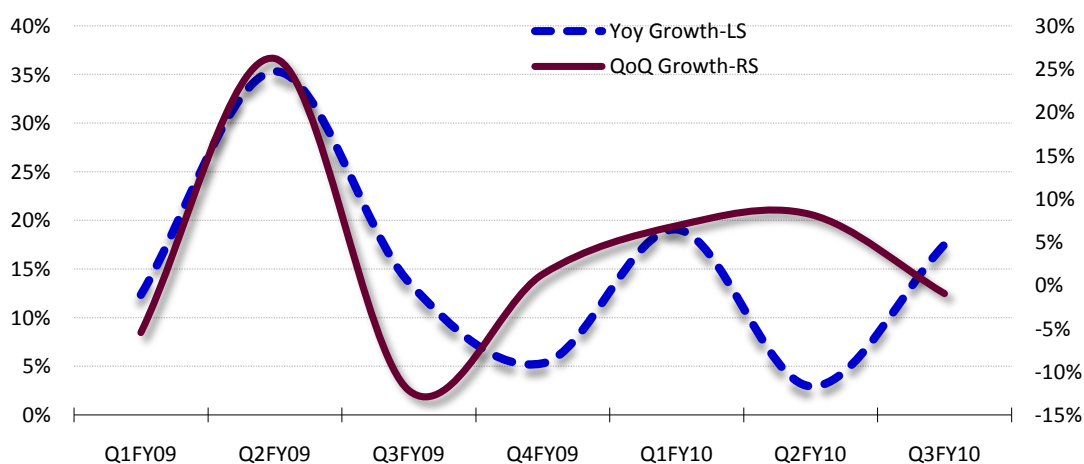
REVIEW OF FINANCIAL PERFORMANCE

The financial performance chemicals and fertilisers industry in India have suffered during FY2009, especially in the last two quarters, despite a healthy increase in operating income. The main reason for the poor performance can be associated with the increased operating costs and increased interest burden. The situation has however improved a little in Q3FY2010.

Chemicals Industry in Southern Region

During Q3FY2010, 19 listed companies in the chemicals sector with registered offices in the Southern Region reported a 1% qoq decrease and 17.5% yoy increase in operating income (OI) to Rs. 4.87 billion. OI (yoy) growth was healthy at 12.4% in Q1FY2009, which increased drastically to 34.2% in Q2FY2009, but reduced to 13.7% in Q3FY2009 and further reduced to 5.4% in Q4FY2009 as signs of recession became evident. However the operating income has displayed a good 17.5% yoy increase during Q3FY2010 compared to just 2.9% increase during the previous quarter. On a qoq basis however, OI growth has decreased by 1% during Q3FY2010, compared to an increase by 8.2% during Q2FY2010 and 6.9% increase during Q1FY2010. Even on a yoy basis, OI growth seems to have followed a decline and keep reducing every quarter after peaking in Q2FY2009, but has picked up pace again in Q1FY2010, reducing again during Q2FY2010 and increasing again this quarter.

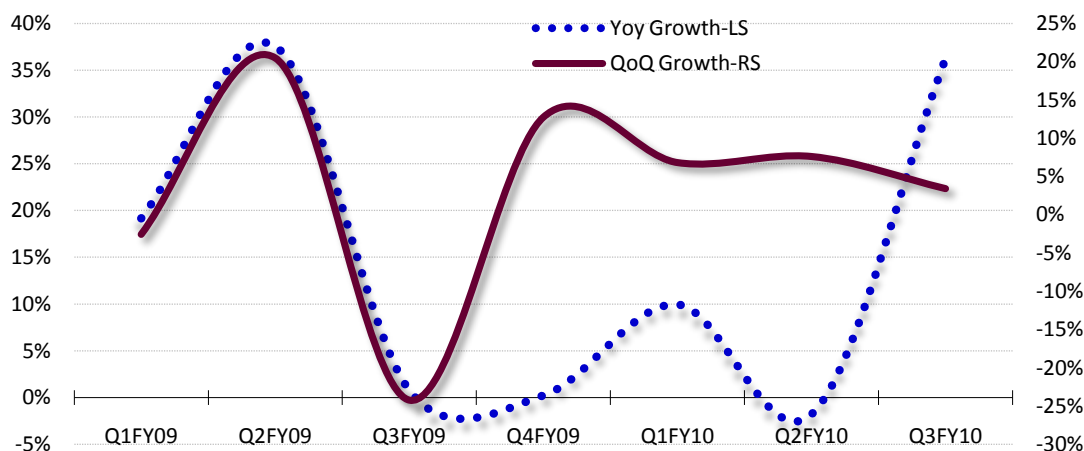
Trends in Operating Income Growth—Southern Region



Source: Compiled by IMaCS

During Q3FY2010 raw material costs have increased by 3.4% qoq compared to 7.6% during the previous quarter.

Trends in Raw Material Costs—Southern Region



Source: Compiled by IMaCS

The following tables provide a quarterly performance comparison of listed chemicals companies in the Southern region.

Financial Performance—Southern Region

Percent of OI

	FY2008				FY2009				FY2010		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Net Sales/OI	100	100	100	100	100	100	100	100	100	100	100
Raw Material Cost	60.6	60.4	60.2	62.2	64.3	61.9	53.2	59.4	59.4	59.0	61.6
Employee Costs	4.8	5.1	5.0	4.5	5.0	4.5	5.5	5.8	5.1	5.1	5.3
Power & Fuel											
Costs	4.3	3.9	4.2	3.9	3.6	3.9	3.9	4.4	3.9	3.5	3.5
Other Operating											
Costs	15.6	15.2	16.1	18.7	13.9	14.6	26.2	19.5	16.7	16.6	15.9
Cost of Sales	85.4	84.6	85.4	89.3	86.8	84.9	88.7	89.1	85.0	84.2	86.4
OPBDIT	14.6	15.4	14.6	10.7	13.2	15.1	11.3	10.9	15.0	15.8	13.6
Interest	2.9	2.5	2.8	2.8	3.4	3.5	4.9	3.1	3.7	3.8	4.1
Depreciation	3.8	3.7	3.8	3.9	3.8	3.0	4.1	3.9	3.8	3.6	3.8
OPBT	8	9.2	8	4	6.0	8.6	2.3	3.9	7.5	8.5	5.7
Other Income	3	14.5	1.4	1.5	1.1	1.4	1.7	2.0	0.7	0.5	1.2
PBT	11	23.7	9.4	5.5	7.1	9.9	4.1	5.9	8.2	9.0	6.9
Tax	2.8	3.3	2.5	2.2	1.8	3.3	2.2	2.7	2.4	3.3	2.3
PAT	8.2	20.4	6.9	3.3	5.2	6.7	1.9	3.2	5.8	5.7	4.6

Source: Compiled by IMaCS

Financial Performance—Southern Region

Rs. million

	FY2008				FY2009				FY2010		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Net Sales/OI	3,393	3,557	3,688	4,030	3,813	4,772	4,142	4,248	4,541	4,914	4,868
Raw Material Cost	2,058	2,148	2,222	2,517	2,452	2,954	2,202	2,524	2,696	2,901	3,000
Employee Costs	163	180	183	181	191	214	229	248	230	250	259
Power & Fuel											
Costs	147	139	154	158	135	185	161	185	179	173	171
Other Operating											
Costs	529	541	592	763	532	699	1,083	830	757	815	774
Cost of Sales	2,898	3,008	3,152	3,619	3,310	4,052	3,675	3,786	3,862	4,140	4,205
OPBDIT	496	549	537	411	503	721	466	461	679	774	664
Interest	97	90	103	117	129	168	202	130	166	186	199
Depreciation	129	133	139	157	146	145	168	165	171	175	187
OPBT	270	327	295	137	228	408	97	167	342	413	278
Other Income	103	515	52	61	41	66	71	85	30	25	59
PBT	373	842	347	198	269	475	168	251	372	439	337
Tax	94	116	93	91	70	157	89	115	110	163	111
PAT	280	726	254	108	200	317	79	136	263	276	225

Source: Compiled by IMAcS

As can be seen from the table above, the sharp increase in operating costs resulted in a steep decline in operating margins during FY2009. But there seems to be some recovery since Q4FY2009, after which in the three quarters of FY2010, the operating margins are higher than what they were during the same quarter in the previous two fiscals.

Financial Performance—Southern Region

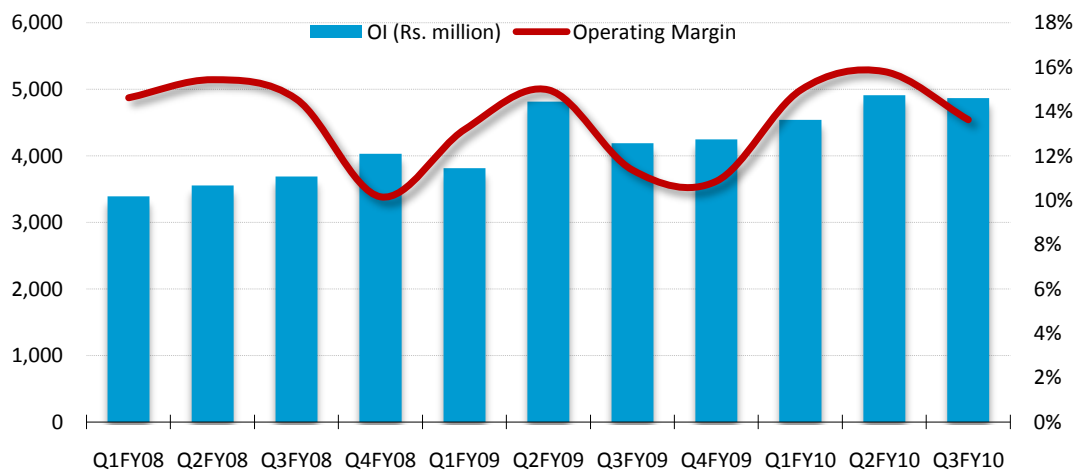
Rs. Million, except percentages

Q3FY	Rs. Million		Change (%)	%of OI	
	2010	2009		2010	2009
Net Sales/OI	4,868	4,142	17.5	100.0	100.0
Raw Material Cost	3,000	2,202	36.3	61.6	53.2
Employee Costs	259	229	13.1	5.3	5.5
Power & Fuel	171	161	6.2	3.5	3.9
Other Operating Costs	774	1,083	-28.5	15.9	26.2
Cost of Sales	4,205	3,675	14.4	86.4	88.7
OPBDIT	664	466	42.3	13.6	11.3
Interest	199	202	-1.2	4.1	4.9
Depreciation	187	168	11.1	3.8	4.1
OPBT	278	97	187.2	5.7	2.3
Other Income	59	71	-17.4	1.2	1.7
PBT	337	168	100.4	6.9	4.1
Tax	111	89	24.7	2.3	2.2
PAT	225	79	186.4	4.6	1.9

Source: Compiled by IMAcS

The operating costs have increased in Q3FY2010 when compared to the previous quarter, each of the individual costs increasing over 20% year on year, but still the operating margins are higher in Q3FY2010 due to increase good revenue numbers.

Trends in Operating Income and Operating Margins (Southern India)



Source: Compiled by IMaCS

On a quarterly basis in southern India, operating margins declined from 15.1% in Q2FY2009 to 11.4% in Q3FY2009, and to 10.9% in Q4FY2009. But they have improved to 15% in Q1FY2010, 15.7% during Q2FY2010 and 13.6% during this quarter.

Chemicals Industry in India

During FY2009, the all India chemicals sector net sales increased by 12.2% compared to the previous year. A decline in the operating expenses and a 43.6% decline in the interest cost led to an overall increase in profit in Q3FY2010.

Financial Performance of the Chemical Sector (All India)

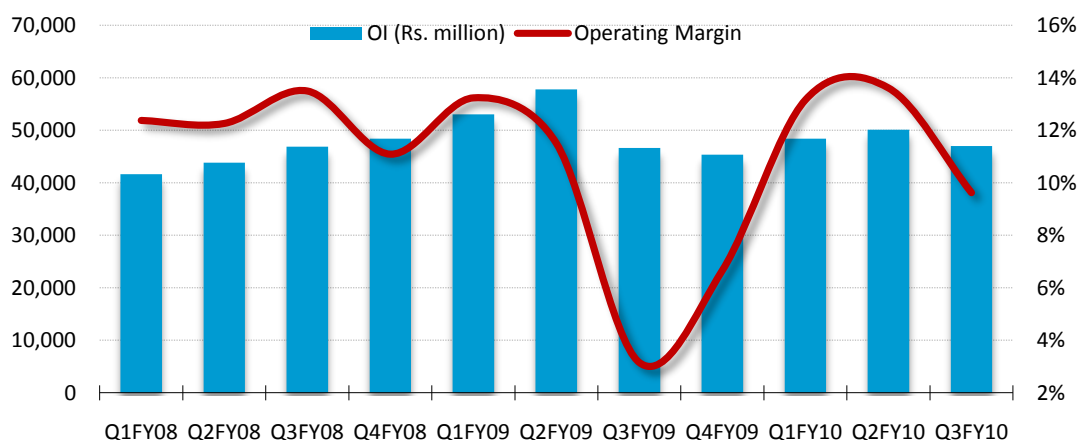
Rs. Million, except percentages

Q3FY	Rs. Million		Change (%)	% of OI	
	2010	2009		2010	2009
Net Sales/OI	46,986	46,478	1.1	100.0	100.0
Raw Material Cost	29,083	27,633	5.2	61.9	59.5
Employee Costs	2,688	2,742	-2.0	5.7	5.9
Power & Fuel	1,028	1,022	0.6	2.2	2.2
Other Operating Costs	9,665	13,580	-28.8	20.6	29.2
Cost of Sales	42,463	44,976	-5.6	90.4	96.8
OPBDIT	4,523	1,502	201.1	9.6	3.2
Interest	1,408	2,497	-43.6	3.0	5.4
Depreciation	1,460	1,709	-14.6	3.1	3.7
OPBT	1,655	-2,703	-161.2	3.5	-5.8
Other Income	1,001	1,018	-1.6	2.1	2.2
PBT	2,656	-1,686	-257.6	5.7	-3.6
Tax	682	247	176.2	1.5	0.5
PAT	1,974	-1,932	-202.2	4.2	-4.2

Source: Compiled by IMaCS

On a quarterly basis in all India, operating margins decreased from 13.2% in Q1FY2009 to 11.5% in Q2FY2009, and to 3.2% in Q3FY2009 but recovered to 6.7% in Q4FY2009. They further recovered to 13.2% in Q1FY2010 and 13.5% in Q2FY2010, but further reduced to 9.6% during Q3FY2010.

Trends in Operating Income and Operating Margins (All India)



Source: Compiled by IMaCS

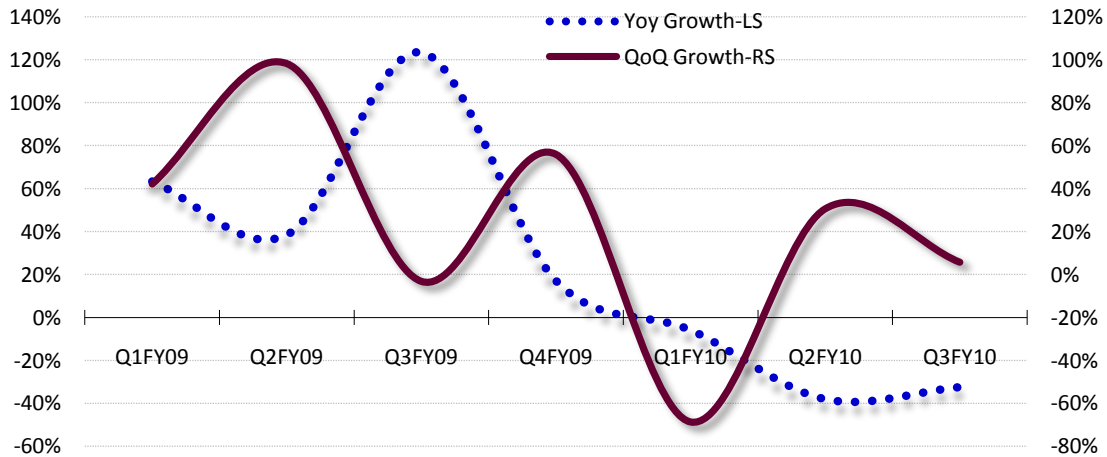
Fertilisers Industry in Southern Region

During Q3FY2010, 7 listed fertiliser companies with registered offices in the Southern Region reported a 5.8% qoq increase and 32.3% yoy decrease in operating income (OI) to reach Rs. 40.9 billion. OI (yoy) growth registered a negative growth of 32.3% during Q3FY2010, as against a negative growth of 37.9% during Q2FY2010, a negative growth of 5.8% during the previous quarter. OI

Chemicals and Fertilisers

(yoy) reported a healthy growth of 63.4% in Q1FY2009 and 38.4% in Q2FY2009, it increased to 123.1% in Q3FY2009, but reduced to 17.2% in Q4FY2009.

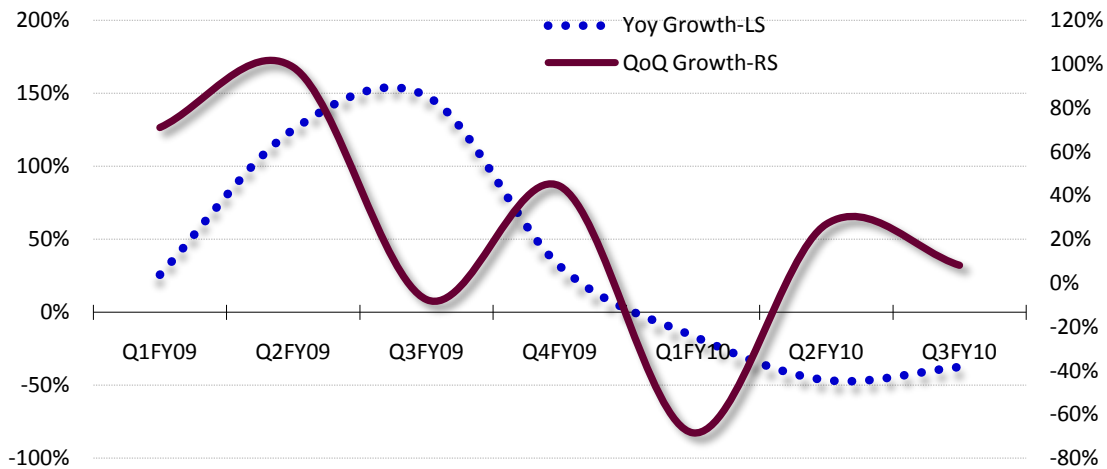
Trends in Operating Income Growth—Southern Region



Source: Compiled by IMAcS

The raw material costs increased by 8.1% qoq in Q3FY2010 and 30.6% qoq in Q2FY2010 but had decreased by 75.8% during Q1FY2010. On a yoy basis raw material costs had decreased by 37.4% in Q3FY2010, 46.4% in Q2FY2010 and 16.2% in Q1FY2010.

Trends in Raw Material Costs—Southern Region



Source: Compiled by IMAcS

The following tables provide a quarterly performance comparison of listed fertiliser companies in the Southern region.

Financial Performance—Southern Region

Rs. Million

	FY2008				FY2009				FY2010		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Net											
Sales/OI	19,215	44,949	27,030	22,085	31,401	62,252	60,403	25,876	29,576	38,632	40,868
Raw Material											
Cost	19,612	21,642	18,231	14,406	24,640	48,937	45,319	85,463	20,644	26,200	28,332
Employee											
Costs	1,049	1,142	1,063	1,130	1,110	1,155	1,250	5,159	1,282	1,389	1,414
Power & Fuel											
Costs	2,419	2,429	3,022	2,990	3,044	4,674	3,434	12,044	2,544	3,297	3,687
Other											
Operating											
Costs	-5,493	16,589	2,515	4,353	-182	2,815	10,138	17,282	3,571	3,227	3,338
Cost of											
Sales	17,587	41,803	24,831	22,879	28,612	57,581	60,141	119,947	28,040	34,112	36,771
OPBDIT	1,627	3,147	2,199	-795	2,789	4,671	262	-94,071	1,536	4,519	4,096
Interest	1,751	1,615	1,468	2,013	1,840	1,851	1,798	4,004	1,245	1,313	1,230
Depreciation	912	929	925	873	906	907	915	3,600	924	956	963
OPBT	-1,036	603	-194	-3,681	44	1,913	-2,450	-101,674	-633	2,251	1,903
Other Income	202	455	216	2,310	1,810	477	921	3,503	380	400	648
PBT	-834	1,058	22	-1,371	1,854	2,390	-1,529	-98,172	-254	2,650	2,552
Tax	321	938	530	164	1,191	1,023	907	2,474	380	1,191	934
PAT	-1,155	120	-509	-1,535	663	1,367	-2,436	-100,646	-633	1,460	1,618

Source: Compiled by IMAcS

As can be seen from the table above, improvement in operating margins during Q3FY2010 is primarily attributable to the increase in sales. The overall yoy profitability of fertiliser companies in the southern region have declined by 166.4% in Q3FY2010 compared to an increase of 378.9% during Q3FY2009.

Financial Performance—Southern Region

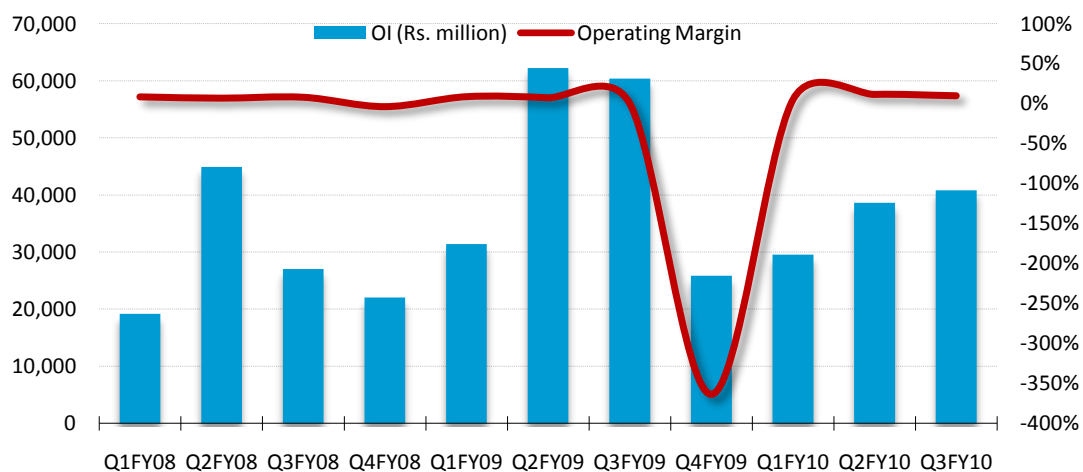
Rs. Million, except percentages

Q3FY	Rs. Million		Change (%)	%of OI	
	2010	2009		2010	2009
Net Sales/OI	40,868	60,403	-32.3	100.0	100.0
Raw Material Cost	28,332	45,319	-37.5	69.3	75.0
Employee Costs	1,414	1,250	13.1	3.5	2.1
Power & Fuel	3,687	3,434	7.4	9.0	5.7
Other Operating Costs	3,338	10,138	-67.1	8.2	16.8
Cost of Sales	36,771	60,141	-38.9	90.0	99.6
OPBDIT	4,096	262	1,461.0	10.0	0.4
Interest	1,230	1,798	-31.6	3.0	3.0
Depreciation	963	915	5.3	2.4	1.5
OPBT	1,903	-2,450	-177.7	4.7	-4.1
Other Income	648	921	-29.6	1.6	1.5
PBT	2,552	-1,529	-266.9	6.2	-2.5
Tax	934	907	3.0	2.3	1.5
PAT	1,618	-2,436	-166.4	4.0	-4.0

Source: Compiled by IMaCS

On a quarterly basis in southern India, operating margins declined from 8.9% in Q1FY2009 to 7.5% in Q2FY2009, and to 0.4% in Q3FY2009. During Q4FY2009, the margins hit a steep low. The operating margins have increased to 5.2% during Q1FY2010, 11.7% during Q2FY2010 and 10.0% during Q3FY2010.

Trends in Operating Income and Operating Margins (Southern India)



Source: Compiled by IMaCS

Fertilisers Industry in India

During Q3FY2010, the all India fertiliser sector net sales declined by 30.3% compared to the previous year. Although there was a decline in operating costs, the operating profit declined by 42.9% in Q3FY2010. The overall increase in net profits was 213.9% in Q3FY2010 compared to a decline of 18.5% during the previous quarter.

Financial Performance of the Fertilisers Sector (All India)

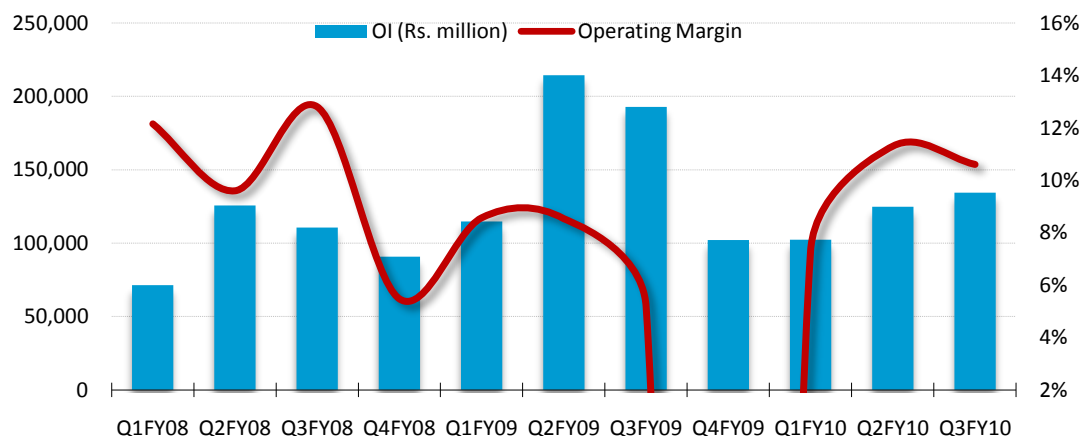
Rs. Million, except percentages

Q3FY	Rs. Million		Change (%)	%of OI	
	2010	2009		2010	2009
Net Sales/OI	134,393	192,740	-30.3	100.0	100.0
Raw Material Cost	88,574	134,805	-34.3	65.9	69.9
Employee Costs	5,847	5,669	3.1	4.4	2.9
Power & Fuel	10,650	11,384	-6.4	7.9	5.9
Other Operating Costs	15,075	30,910	-51.2	11.2	16.0
Cost of Sales	120,147	182,768	-34.3	89.4	94.8
OPBDIT	14,246	9,972	42.9	10.6	5.2
Interest	2,350	3,635	-35.3	1.7	1.9
Depreciation	3,470	3,244	7.0	2.6	1.7
OPBT	8,426	3,093	172.4	6.3	1.6
Other Income	1,852	2,272	-18.5	1.4	1.2
PBT	10,278	5,365	91.6	7.6	2.8
Tax	3,611	3,241	11.4	2.7	1.7
PAT	6,667	2,124	213.9	5.0	1.1

Source: Compiled by IMaCS

On a quarterly basis in all India, operating margins declined from 12.8% in Q3FY2008 to 4.9% in Q3FY2009 but recovered marginally to 5.9% in Q4FY2009. It further recovered to 7.3% in Q1FY2010, 11.3% in Q2FY2010 and 10.6% in Q3FY2010.

Trends in Operating Income and Operating Margins (All India)



Source: Compiled by IMaCS

SHORT-TERM OUTLOOK

Net sales of the fertiliser industry are expected to grow by 13% in Q4FY2010, which will be largely volume-driven. Besides, high subsidy income will also add to the sales growth and profit margins are likely to improve during this quarter. Sales growth is likely to accelerate from Q1FY2011. In 2010-11, net sales is expected to grow by over 20%. A 30% hike in the Administered Price Mechanism (APM) gas price is expected from Q1FY2011. Rainfall is expected to be normal in 2010-11 and this will lead to a rise in fertiliser consumption. As a result, fertiliser production is expected to grow by around 9% over and above an expected 11.5% growth in 2009-10.

Being an intermediate for a host of industries, demand for organic chemicals is related to the demand growth in the end user industries such as PTA, textile, pharmaceuticals, fertilisers, dyes and paints, paper, resins etc. Weak demand-Supply situation and lower prices are likely to affect production, sales growth, and profitability during 2009-10. However, there is a significant scope for growth in the long term with the per capita chemicals consumption being only 5 kg per annum, much lower than the comparable figures in the developed markets. Commodity nature of the bulk chemicals industry and fluctuations in prices subjects the revenues and profits of the players to volatility. Thus, there are concerns on sustainability of the earnings for pure bulk chemicals players.

During Q4FY2010, the net sales of the caustic soda companies are expected to fall. A fall in realisations due to a sharp fall in caustic soda prices (yoy) will continue to drag down the aggregate revenues of the industry for the fourth consecutive quarter. The companies will continue to face the double whammy of lower revenues and higher input costs. Improvement in realisation will lead to rise in aggregate revenue from Q1FY2011, but the profit margins will continue to remain under pressure during the quarter. In the subsequent three quarters of 2010-11, a faster rise in revenues will result in an improvement in the aggregate profitability compared to a year ago.

The net sales of the soda ash companies are expected to fall during Q4FY2010 due to a fall in soda ash prices on a yoy basis. A rise in expenses will result in erosion in the profit margin compared to the quarter a year ago. In 2010-11, sales are expected to grow by 8% compared to an 11.5% fall estimated for 2009-10.

The demand for titanium dioxide is dependent on the paints sector. Paints industry is expected to display moderate growth in the medium term backed by improved volumes in both the decorative and industrial paints segment. A healthy (but lower) growth in GDP, access to housing finance and fiscal incentives to housing sector may provide impetus to the housing activity may continue to drive growth in decorative paints business.

With the shift in emphasis on product innovation, brand building and environmental friendliness, the chemicals industry is increasingly moving towards greater customer orientation. Even though India enjoys an abundant supply of basic raw materials, it will have to build upon technical services and marketing capabilities to face global competition and increase its share of exports.

The demand for fertilisers is expected to continue to grow moderately over the short to medium term. However, over the longer term, significant increase in agricultural production would be required which would require significantly higher level of fertiliser consumption than the current levels. For

Indian fertiliser manufacturers, securing supplies to a cost-effective feedstock holds the key to future growth. Under the new concession scheme for fertilisers, factors for increasing shareholder value include effective feedstock management, increased energy efficiency, large capacity sizes, effective location of plant, and high capacity utilisation.

Industry and Economic Update has been prepared by ICRA Management Consulting Services Limited (IMaCS) for the Confederation of Indian Industry (CII).

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