

# Ratings criteria for the fertiliser industry

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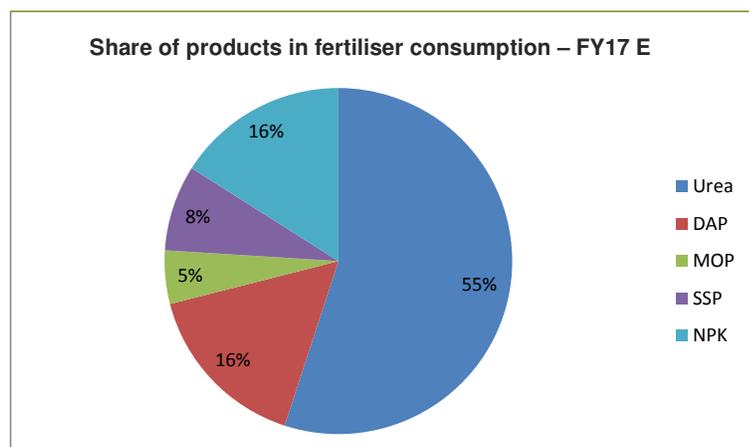
## Executive summary

Over the past few decades, the Indian fertiliser industry has grown significantly on the back of favourable demand, conducive government policies and increasing agricultural output. Today, India is one of the largest producers and consumers of fertilisers in the world, boasting of 60 manufacturing facilities.

Based on nutrient composition, the industry can be broadly divided into nitrogenous (N), phosphatic (P) and potassic fertilisers (K). Urea is the main nitrogenous fertiliser. Non-urea fertilisers include complex fertilisers such as diammonium phosphate, (DAP) and nitrogen, phosphorous and potassium (NPK), as well as straight fertilisers such as single super phosphate (SSP) and muriate of potash (MoP).

While demand for urea and phosphatic fertilisers is met by both domestic production and imports, potassic fertilisers are entirely imported.

Urea is more popular in northern India, whereas complex fertilisers are in greater demand in southern India. As highlighted below, urea accounts for more than half (~55%) of the fertiliser consumption in India:



*E: Estimated; Source: Department of Fertilizers, CRISIL Research*

Urea is preferred on account of:

- Significant price difference between urea and other products due to deregulation of the latter
- The ideal nutrient composition, too, favours nitrogen, and hence, urea. The perfect NPK ratio of soil stands at 4:2:1. However, due to indiscriminate urea use, this ratio stood at 6.9:2.7:1 in fiscal 2016

The proportion of urea in overall fertiliser consumption is expected to come down on account of government policies such as neem coating of urea (which improves absorption in to soil and prevents its diversion to other chemical industries by making it unfit for non-fertilising use), and improving awareness about balanced fertiliser consumption (through use of soil health cards).

The Indian fertiliser Industry is characterised by reasonable to sizeable capital intensity, high level of government control and limited access to key raw materials such as natural gas and naphtha. Owing to the farmers' dependence on the monsoon, the industry is exposed to cyclical in end-user demand, however this is mitigated by subsidy flows from the government that are linked to production/ despatches.

## Scope

While the broader criteria for manufacturing companies<sup>1</sup> apply to entities in the fertiliser sector, this article<sup>2</sup> details the industry factors that impact the credit risk profiles of these firms.

## Business Risk

### Government policies

The fertiliser industry has always been highly regulated. Hence, CRISIL believes that a fertiliser company's credit risk profile is significantly vulnerable to government policies, which not only influence demand factors but also supply-side variables through pricing, distribution controls and subsidies. The policy environment has been such that the subsidy element chiefly determines a fertiliser company's profitability.

Phosphatic and potassic fertiliser makers were governed by the Retention Pricing Scheme (RPS) till 1992 and urea players, till March 2003. Introduced in 1977, the RPS, with the objective of achieving self-sufficiency and providing adequate returns to fertiliser companies, has been primarily responsible for the growth in domestic fertiliser capacity and production. The commissioning of large capacities, persuaded by the promise of assured returns under RPS, and a marginal rise in farm-gate prices compared with production costs, however, resulted in a ballooning subsidy burden. In a bid to control its subsidy bill, the government has been changing its fertiliser policies over the last decade. The fortunes of fertiliser manufacturers have thus varied with each policy change.

While retail prices of urea continue to be regulated, prices of non-urea fertilisers were deregulated in April 2010.

In addition to price regulation, subsidy disbursement policy also impacts the credit risk profile by impacting the working capital cycle of the fertiliser producer. The implementation of direct benefit transfer (DBT) is expected to be a positive for the sector in the long term, as on account of improvement in subsidy realisation, working capital borrowings of players are expected to come down. However, the implementation of DBT should be gradual, given the challenges such as inadequate support infrastructure.

### Non-urea fertilisers

Phosphatic and complex fertiliser manufacturers are governed under the Government of India's ad hoc concession scheme. In the early to mid-1990s, the demand for phosphatic fertilisers was considerably impacted following the decontrol (1992) and flip-flops in government policies, resulting in highly-decontrolled farm gate prices as against urea, which was then governed by RPS, and was therefore subsidised. High phosphatic fertiliser prices distorted the consumption patterns in the country in favour of nitrogenous fertilisers, thereby creating a nutrient imbalance.

Currently, non-urea fertilisers are governed by nutrient based subsidy (NBS) scheme, introduced in 2010, wherein the subsidy component is fixed and domestic prices are allowed to vary in-line with international prices.

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<sup>1</sup> The detailed criteria is present on the CRISIL website under the 'Criteria and Methodology' section—'Rating Criteria for Manufacturing and Services Sector Companies' and 'CRISIL's Approach to Financial Ratios'.

<sup>2</sup> For accessing the previous published document on "Rating Criteria for Fertiliser Industry" Kindly refer to the following link: [https://www.crisil.com/content/dam/crisil/criteria\\_methodology/materials/archive/CRISIL-Ratings-criteria-fertiliser-industry\\_2007.pdf](https://www.crisil.com/content/dam/crisil/criteria_methodology/materials/archive/CRISIL-Ratings-criteria-fertiliser-industry_2007.pdf)

CRISIL evaluates a player's profitability within the overall framework of NBS. Players with strong raw material linkages (especially phosphoric acid/rock phosphate), efficient handling operations, adequate storage facilities and effective conversion parameters tend to have better margins. Proximity to markets and presence of strong brands result in better recoveries of distribution and selling expenses for players.

The phosphatic and complex fertiliser manufacture is not capital intensive and therefore the profitability for players is lower than their counterparts in the urea industry. The regulatory environment for phosphatic manufacturers is liberal with lesser distribution or selling restrictions on the end product. While there has been progressive tightening of norms under the ad-hoc concession policy over time, players with cost structures well within the normative parameters of the government policy and strong risk management policies tend to have superior business risk profiles.

### **Urea**

Urea pricing is governed under the new pricing scheme (NPS) from April 1, 2003, which replaced the RPS. NPS is a group concession scheme that aggregates plants of similar vintage and feedstock under six groups. Pre-set energy consumption norms were specified in Stage I (fiscal 2004) and Stage II (fiscals 2005 and 2006) of the NPS and capital costs were also reassessed. These resulted in a decline in industry profitability during the period. Stage III, which was applicable from October 1, 2006 to March 31, 2010 incentivised production of urea beyond 100% capacity. This policy was further amended in April 2014, updating the cost assumptions used in calculating the subsidy. Essentially, extant regulations fix the retail price of urea and subsidy is dependent on cost of production (which in turn would have commodity linkages).

CRISIL evaluates the cost structure of urea players against that of the group it is assigned to under NPS. While subsidy under NPS is expected to be progressively tightened, players with strong raw material linkages (essentially natural gas or liquefied natural gas [LNG]), low energy consumption levels, competitive cost structure and economies of scale are expected to fare better over the long term. The ability of players to further improve energy efficiencies without incurring large capital expenditures, to get additional gas/ (LNG) allocations; and approvals for brownfield capacity expansions in India (or greenfield capacities at international locations with availability of gas at competitive prices) will also be a key determinant of their business risk profiles.

CRISIL believes that unlike other industries, fertiliser producers are more exposed to policy changes and uncertainties, which have a significant bearing on their business risk profiles. Due to political compulsions over the inability to charge market pricing from the farmers, the government will continue to play a major role, retaining some kind of subsidy mechanism for the sector over the near-to-medium term.

### **Market position**

#### **Demand - supply**

The low per-hectare consumption levels of fertilisers in the country points to an increasing demand for all three nutrients - nitrogenous, phosphatic and potassic over the long term.

On account of unfavourable investment policies, capacity additions were absent in the urea segment – leading to a surge in urea import (from 0.5 million tonne [MT] in fiscal 2000 to 6.9 MT in fiscal 2008). The Government of India (GoI) introduced Urea Investment Policy in 2008, which saw muted response, as no assurance was provided for gas prices and returns were not linked to gas costs. This was addressed in the updated policy in 2012, which linked realisations to costs and assured minimum return on networth of 12% to the companies. This policy led to a rush of applications, which would have resulted in overcapacity in the industry. Consequently, the policy was modified to remove the assured off-take clause. Still, 5.5–6.5 MT of capacity is expected to be added by fiscal 2021<sup>3</sup>, shrinking

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<sup>3</sup> Source: CRISIL Research

the demand-supply gap. CRISIL closely examines the demand-supply scenario while evaluating business risk. With non-urea fertiliser plants not operating at high capacity utilisation, limited capacity addition is expected for this segment.

Over the short term, CRISIL believes that the consumption patterns of fertilisers will remain susceptible to pricing and subsidy policies, which may tilt demand in favour of certain varieties and influence the manufacturers' capacity addition plans. At a macro level, the demand-supply position of various fertilisers is by and large favourable; the players' market position is also a function of their brand equity in a particular region and the regional demand-supply equation.

### **Distribution network**

Fertiliser manufacturers with a wide and established distribution network would be in a better position to take on competition. In addition, players that cater to a larger number of states would be relatively better placed as they would be less susceptible to the vagaries of monsoons.

### **Issues specific to urea manufacturers**

The partial loosening of controls on distribution under the Essential Commodities Act (ECA) with effect from October 2003 has resulted in a scenario where players with substantial distribution network are able to improve their market position. Players located close to their target markets also have an advantage as they can cash in on freight savings arising from distribution decontrol.

### **Operating efficiency**

#### **Capacity utilisation**

Under RPS, a plant's operating parameters, especially in the case of urea manufacturers, played a major role in determining a player's profitability. Earlier, urea manufacturers were reimbursed for variable costs on the basis of normative consumption levels and for fixed costs on a capacity utilisation of 90%; higher capacity utilisation resulted in increased profitability. With the implementation of the group concession scheme, however, this parameter's importance has been eclipsed by factors such as the energy efficiency, low fixed costs, availability of feedstock, plant vintage and technology. Further, the policy allowing pooling of domestic gas and LNG, and thereafter applying uniform cost of gas ensures stability of profitability.

#### **Flexibility in sourcing raw materials**

Under RPS, the urea manufacturers' import dependence was not a matter of concern since all variable costs were reimbursed. Considering the government's move towards gradual decontrol, urea units are likely to face issues with respect to their dependence on raw material imports. Flexibility in sourcing inputs will also be a positive factor.

In the case of phosphatic fertilisers, the degree of import dependence is high with most raw materials such as phosphoric acid, rock phosphate, sulphur and ammonia being imported. This increases the inherent business risks in the event of supply shortage and a depreciating rupee environment. In such scenario, players with assured long term supply of raw materials at stable prices, or with domestic facilities for phosphatic fertilisers tend to have stronger credit risk profile. Additionally, players with flexible manufacturing facilities, which enable them to shift between sourcing of intermediates and basic raw materials, depending on the cost economics, are usually able to minimise cost increases.

The players' raw material handling facilities and the ability to store them are the other key operating efficiency determinants, given that raw materials are imported and their prices are volatile.

## Cost structure

Over the long term, the policy orientation is expected to favour the more efficient plants that use cheaper feedstock, are energy efficient and have an internationally competitive cost structure. Thus, while the current players are comfortably placed today, they will need to focus on reforming their cost structure. This includes exploring alternative and more viable feedstock and benchmarking themselves against international players in terms of scale of operations, production routes, energy efficiency and productivity levels.

In a scenario where both farm gate prices and subsidies will need to grow within reasonable limits and given the resultant pressures on profitability, a fertiliser plant's cost structure will have a critical bearing on the credit quality.

## Financial risk

In analysing the financial risk of a fertiliser company, CRISIL follows the standard criteria used by all manufacturing companies. This criterion is articulated in detail in our publications 'Rating Criteria for Manufacturing and Services Sector Companies' and 'CRISIL's Approach to Financial Ratios'.

## Management risk

For the analysis of the management risk profile of fertiliser companies, CRISIL follows the standard criteria used for all manufacturing companies. This criteria is presented in detail in our publication, 'Rating Criteria for Manufacturing and services sector Companies'.

## Conclusion

The key factors analysed as part of CRISIL's rating assessment model for fertiliser companies are:

- Relative position within the current government policy framework
- Raw material sourcing linkages
- Type of feedstock
- Plant conversion efficiencies and vintage
- Locational advantage
- Internationally competitive cost structure

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