India is the 3rd largest producer and consumer of fertilizers. Overall production of fertilizers during FY18 has been 413 LMT.

Domestic Fertilizer Production and Import levels during FY18

Overall the production of fertilizers as compared with the previous year was flat. Since the start of the year fertilizer production was subdued due to the clearing of the stockpile of inventory, in anticipation of introduction of GST. The production started increasing from H2FY18 due to a certain degree of restocking as the farm sector prepared for the sowing season.

Domestic production of urea (which constitutes about 60% of the overall fertilizer production) has decreased marginally by 0.7%, and imports have increased by 9.0% during FY18 indicating thereby that the decline in domestic production has been compensated by the increase in imports. Urea imports started increasing from H2FY18 onwards.

Import dependence of urea (imports as a proportion of production plus imports) slightly increased from 18.5% in FY17 to 19.9% in FY18 while share of domestic production decreased marginally from 81.5% to 80.1% during this period. Presently India mainly imports Urea from Oman (42%), Iran (34%) and China (13%).

Till H1FY18 the domestic production and import of urea was lower than its previous year’s levels, due to the fall in usage of urea. Urea consumption had fallen relatively due to the effectiveness of the practise of neem coating of urea and due to better implementation of the soil health card which aims to bring the levels of soil to the ideal NPK ratio of 4:2:1. Currently the NKP ratio is 6.8:2.7:1

Diammonium Phosphate (DAP) production has risen on account of expansion of domestic capacity and easy availability of acid, which has partly substituted imports that decreased by 3.8% during FY18. India mainly imports DAP from China (45%), Saudi Arabia (31%), USA (13%) and Jordan (5%).

India meets its Potassium chloride (commonly referred to as Muriate of Potash or MOP) requirements completely through imports from Canada (23%), Russia (22%), CIS+ Belarus (15%), Israel (15%), Jordan (11%) and Lithuania (10%). MOP imports have increased by 26.8%
Single superphosphate (SSP) production has fallen due to the low utilization of capacities. SSP is indigenously produced and procured.

Table 1: Production and Import numbers of key fertilizers (LMT)

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>Y-o-Y Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Fertilizer Production</td>
<td>412</td>
<td>413</td>
<td>413</td>
<td>0.2%</td>
</tr>
<tr>
<td>Overall Fertilizer Imports</td>
<td>205</td>
<td>161</td>
<td>171</td>
<td>-21.8%</td>
</tr>
<tr>
<td>Urea Production</td>
<td>245</td>
<td>242</td>
<td>240</td>
<td>-1.2%</td>
</tr>
<tr>
<td>Urea Imports</td>
<td>85</td>
<td>55</td>
<td>60</td>
<td>-35.3%</td>
</tr>
<tr>
<td>Non-Urea Production*</td>
<td>169</td>
<td>173</td>
<td>175</td>
<td>2.3%</td>
</tr>
<tr>
<td>DAP Production</td>
<td>38</td>
<td>43</td>
<td>46</td>
<td>14.4%</td>
</tr>
<tr>
<td>DAP Imports</td>
<td>60</td>
<td>44</td>
<td>42</td>
<td>-27.0%</td>
</tr>
<tr>
<td>SSP Production</td>
<td>43</td>
<td>44</td>
<td>39</td>
<td>3.5%</td>
</tr>
<tr>
<td>MOP Imports</td>
<td>32</td>
<td>37</td>
<td>47</td>
<td>15.2%</td>
</tr>
</tbody>
</table>

Source: Department of Fertilizers, CMIE, Office of the Economic Adviser (figures do not add up due to different sources)

Note: Non-Urea* Fertilizers include NPK fertilizers, Ammonium nitrate, ammonium sulphate, DAP and SSP

Trend in prices of key input raw materials

Natural gas is used as feedstock for the manufacturing of urea and accounts for 80% of the raw material cost for urea manufacturing. Initially the fertilizer sector was given 1st priority for the usage of domestic natural gas, but it was later amended and now is given 3rd priority. Now first priority is given to the CGD entities. Even with this change, the fertilizer sector is still the leading consumer of domestic natural gas. Additional requirement of natural gas is plugged through import of natural gas in the form of RLNG. Out of 31 urea plants in India, 28 are gas based. The price of natural gas was the lowest during H1FY18 ($2.48/mmBtu), which aided in improving the profitability of urea manufacturers. As per New Domestic Gas Policy, when price of domestic natural gas was revised, it was increased by 17.5% to $2.89/mmBtu during H2FY18. Prices of natural gas were increased as prices of crude oil had also started firming up.

Chart 1: Trend in Domestic and International Natural Gas Prices (USD/MMBTU)
Prices of domestic natural gas have increased by 5.8% to $ 3.06 mmBtu for H1FY19.

India imports the raw materials needed for manufacturing of fertilizers. Prices of phosphoric acid have started firming up from December 2017 onwards whereas prices of ammonia and sulphur have been softening in the same period. Price of rock phosphates have been stable throughout. Price of ammonia was USD 309/MT, sulphur USD 149/MT, phosphoric acid USD 678/MT and rock phosphates USD 120/MT during March 2018.

Chart 2: Prices of Raw Materials used for Fertilizer Production (USD/MT)

Prices of phosphoric acid were USD 730/tonne during the month of April 2018 (prices have increased by USD 50/tonne from its March 2018 levels). This could add pressure to the margins of DAP producers. The only relief for the manufacturers is that the subsidy for the raw material phosphorus (P) has increased by 26.7% for FY19. Nutrient based subsidies for nitrogen (N) and potash (K) have been reduced by 0.5% and 10.4% respectively whereas subsidy for sulphur (S) has been increased by 20.5% for FY19.

Policy Update

Direct Benefit Transfer (DBT): DBT has now been rolled out on nationwide basis as all the states are now under the ambit of DBT. Fertilizer companies have started aligning their sales through the DBT mechanism. DBT in fertilizer is meant to transfer subsidies to manufacturers upon authentication of purchase by farmers which can help restricting diversion, prevent leakages, and bring about greater transparency, accountability and efficiency in the system. Since implementation is still in its initial stage there have been challenges with respect to technology, compliance and recording of transactions on the POS machines.

Source: Department of Fertilizers
FY19 Outlook

The Government of India is focused on the development of the agricultural sector and on improving the rural economy. During the announcement of the FY19 budget the government introduced various policies such as MSP at 1.5x cost of production, institutional credit at USD 17 billion and increased allocation under crop insurance.

- Given the importance towards the agricultural sector and the impetus given in increasing crop production we estimate the overall fertilizer production to increase during FY19 to 422-425 LMT.

The government is extremely committed in improving the quality of soil and in bringing it to its ideal NPK levels. The ideal NPK ratio is 4:2:1 whereas Indian soils the ratio is 6.8:2.7:1.

- With the sales of fertilizers now being streamlined with the DBT mechanism which is linked with soil health cards we can expect improvement in the nutrient usage. The government has distributed 136.5 mn soil health cards till date.
- We can expect the production non controlled fertilizers like DAP and SSP to increase given the importance of balanced usage of fertilizers and also with the government increasing the subsidy rate for P grade and S grade fertilizers.
- Urea usage to be moderate during FY19 due to the effectiveness of neem coating of urea and with the introduction of 45kg urea bags (earlier 50kg urea bags were sold).

Challenges

Rise in global oil prices which has led to the rise in natural gas prices and R-LNG prices will affect urea manufactures.

- As per our estimates the raw material cost for the fertilizer industry could increase by 5% due to the increase in gas prices. This could pressure on fiscal spending of the government while disbursing the subsidies. The fertilizer subsidy for FY19 has been fixed at ₹70,090 crore out of which ₹44,989.50 crore is earmarked as the urea subsidy and the remaining ₹25100.5 crore as the nutrient based subsidy.

The fertilizer sector could face issues regarding the liquidity of working capital.

- The fertilizer sector faces an inverted duty structure with the raw materials being taxed at 18% (except phosphoric acid which is taxed at 12%) and the final product being charged at 5%.
- Introduction of DBT will help bring relief to manufactures with the subsidies being transferred directly to them, but since the implementation is still picking up there are a few teething issues which need to be resolved, till then this could lead to a short term liquidity crunch with the manufacturers in the collection of subsidies.