

## Indian Fertilizer Industry: Insights and Prospects

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### Overview:

- *The Indian Fertilizer Industry has shown tremendous growth in the last five decades and at present ranks third in the world.*
- *India is the second largest consumer of fertilizers after China.*
- *India also ranks second in the production of nitrogenous fertilizers and third in phosphatic fertilizers whereas the requirement of potash is met through imports since there are limited reserves of potash in the country.*

*According to the Food and Agriculture report world demand for total fertilizer nutrients is estimated to grow at 1.8% per annum from 2014 to 2018. The demand for nitrogenous, phosphatic, and potash is forecasted to grow annually by 1.4%, 2.2%, and 2.6%, respectively, during the period. Over the next five years, the global capacity of fertilizer products, intermediates and raw materials will increase further. The global demand for nitrogenous fertilizers is expected to grow around 5.6% to 119.4MT in four years through 2018, according to the Food and Agriculture Organization of the United Nations. Asian nations, led by China and India, are expected to account for 58% of this increase.*

*The fertilizer industry is considered to be an allied activity of the Agricultural sphere. Farming and ancillary activities contribute about 1/6<sup>th</sup> to India's GDP. Being an important industry to the Indian economy, the government has ensured the availability of adequate quantity and proper quality of fertilizers to the farmers. Also, to make sure adequate control over its quality, price and distribution, the industry is highly regulated under the Fertilizer Control Order, 1985.*

### Types of Fertilizers

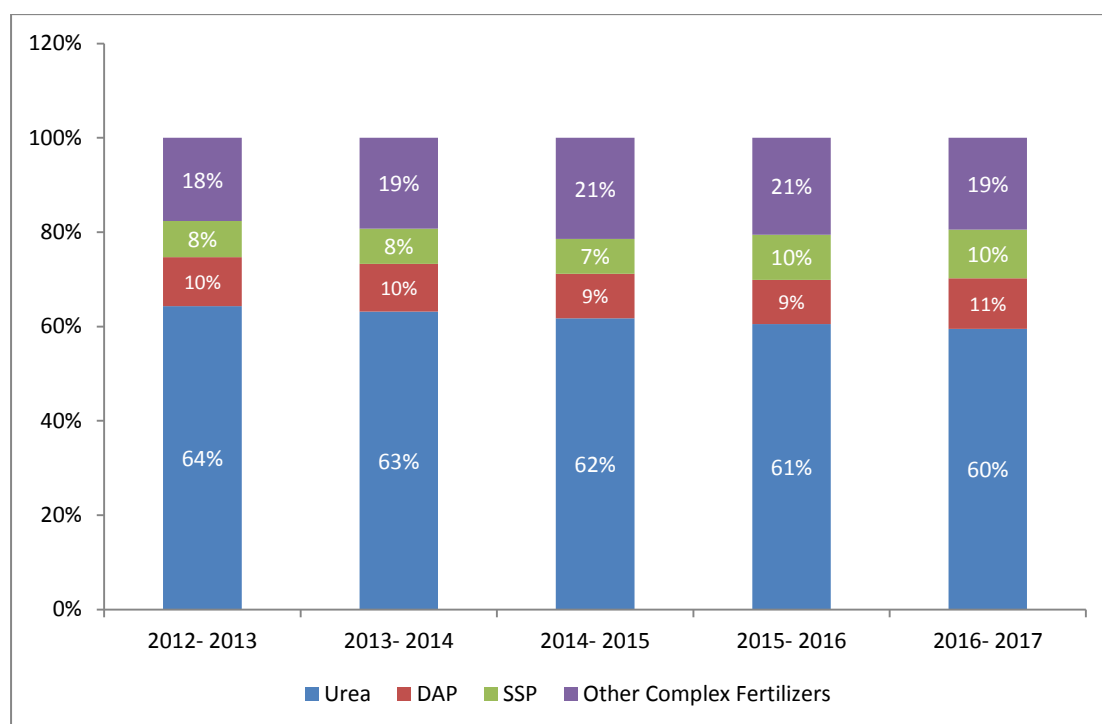
A fertilizer is a chemical product either mined or manufactured material containing one or more essential plant nutrients that are immediately or potentially available in sufficiently good amounts. Chemicals fertilizers are classified on the basis of quantum required by the soil as Primary, Secondary and Micronutrients. Primary nutrients are further categorized on the type of nutrients they

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supply to the soil which are as nitrogenous, phosphatic and potassic fertilizers. Secondary nutrients include calcium, magnesium and Sulphur while micronutrients, include iron, zinc, copper, boron and chlorine. India is dependent on imports for raw materials for production of Nitrogenous & Phosphatic fertilizers.

Product wise Chemical Fertilizers are classified into Urea, Diammonium Phosphate (DAP), Single Super Phosphate (SSP), Muriate of Potash (MOP) and other Complex fertilizers like Calcium Ammonium Nitrate (CAN) and various grades of NPK Fertilizers (Fertilizers having different grades of Nitrogen (N), Phosphorus (P), and Potassium (K) ). In India the most widely used fertilizer in the Nitrogenous category is Urea, DAP and MOP for Phosphorus and Potassium respectively.

**Chart 1: Category- wise Production of Fertilizers**



Source: Department of Fertilizer, CMIE

During the FY 2016-17 India has produced 413.24 LMT of fertilizers. Urea dominates the total fertilizer production in the country. While India is the world’s second largest consumer of urea, the Government of India is working towards increasing the production of urea so as to end imports by 2022 and achieve self-sufficiency in Urea Production. Out of the total fertilizer production India produces only 10%-12% of DAP but due to recent fall of raw material prices in the international markets, phosphates have become cheaper and its economical to produce the fertilizer rather than importing the end product. Hence the government is encouraging sprucing up the production of DAP, which is the second most widely used fertilizer after urea. Production of Complex Fertilizers includes the various grades of NPK Fertilizers (Nitrogenous- Phosphorus- Potassic). The Government is encouraging SSP production as SSP is also considered as a substitute to diammonium phosphate (DAP), which is largely import based and costlier vis-a-vis to SSP.

### Production Capacity Installed.

Due to the support offered by the Government towards the growth of the Fertilizer Industry there has been a rapid build-up of manufacturing units of Urea, DAP and other complex fertilizers in the country with investments in the Public, Cooperative and Private Sectors. At present there are:

- 30 Large sized Urea Manufacturing units,
- 21 DAP and Complex Fertilizers units and
- 2 units which manufacture Ammonium Sulphate as a By- Product.
- 105 medium and small scale units in operation producing Single Super Phosphate (SSP).

**Table 1: Sector-Wise Capacity of Fertilizer Manufacturing Units for 2015-2016 and 2016-2017 (figures in \*LMT)**

Sector	Urea			DAP and Complex Fertilizers		
	2015-2016	2016-2017	% Change	2015-2016	2016-2017	%Change
Public	63.09	63.09	0%	21.64	21.64	0%
Cooperative	54.19	54.19	0%	43.35	43.35	0%
Private	90.25	90.26	0.01%	79.05	81.01	2.48%
Total	207.53	207.54	0%	144.04	146	1.36%

Source: Department of Fertilizer

\*LMT stands for Lakh Metric Tonnes

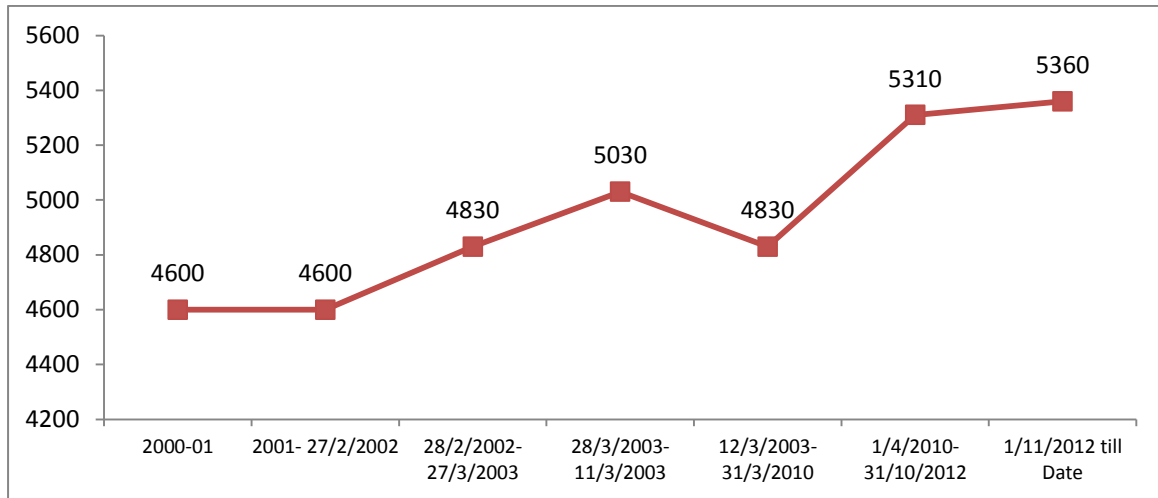
There hasn't been much of a change in the annual/reassessed capacity in the Public and in the Cooperative Sector where as there has been a marginal increase of 0.01% in the Urea manufacturing units and an increase of 2.48% in the DAP and Complex Fertilizer manufacturing units in the Private sector.

Under the New Urea Policy, the government has allowed the manufacturers of urea to produce additional quantity of urea as part of its objective to boost indigenous urea production in the country. The ceiling imposed on production beyond Re-Assessed Capacity during 2016-17 has been raised so as to enable all urea units to produce additional production which otherwise they were not able to do so due to low Import Parity Price

### Urea

Urea is an inexpensive form of nitrogenous fertilizer. Urea is synthetically produced in enormous quantities. Although urea often offers farmers the most nitrogen for the lowest price in the market since it is heavily subsidized by the Indian Government, it should be used judiciously to avoid the soil turning acidic in nature. Urea contains 46% nitrogen. Urea is the only "Controlled Fertilizer" which means the Government controls the MRP of Urea. Currently Urea is priced at Rs 5,360 per tonne.

**Chart 2: Trends in Urea Pricing (Rs/Tonne)**

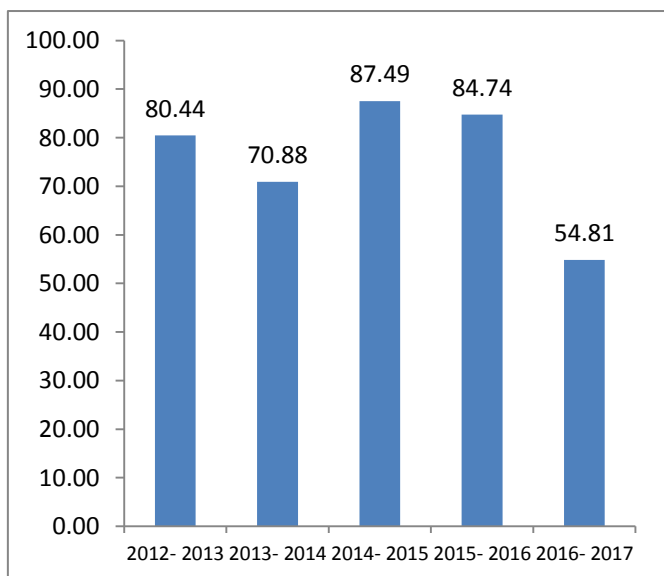
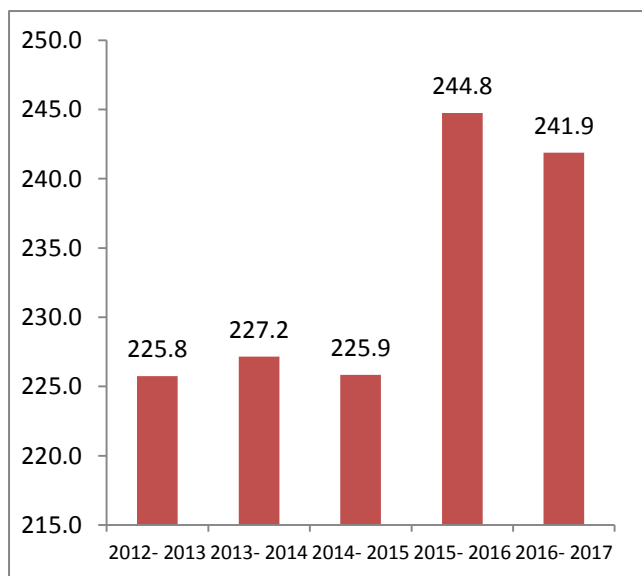


Source: Department of Fertilizer

The current MRP of Urea which is Rs. 5360 per MT is exclusive of the Central Excise Duty for the domestically produced urea, countervailing duty for the imported urea (which is 1% at present) and state VAT (which again differs state to state.). (This will change with GST). The MRP also includes:

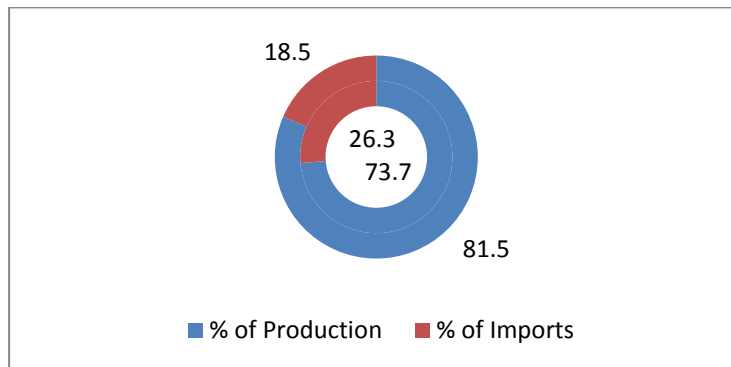
- Rs. 180/MT Margins for dealers belonging in the private and PSU sectors and Rs. 200/MT for dealers in the cooperative sector.
- Rs 180/MT is given as Retailer margins which help in acknowledging the receipt and reporting the stock. Ever since the government has also mandated introduction of neem coating of urea an additional charge of an extra 5% on the MRP of urea is charged by the fertilizer manufacturing companies.

**Chart 3: Production of Urea in India (in units of LMT) Chart 4: Urea Imports by India (in units of LMT)**



Source: Department of Fertilizer

**Chart 5: Trend in Urea Imports vis-à-vis Urea Production, FY 2012-13 v/s FY 2016-17**



Source: Department of Fertilizer

Domestic urea production is growing at a stable rate of 1.74% CAGR from FY 2012-13 to FY 2016-17. There has been a slight fall in the urea production y-o-y basis from FY2015-16 by 1.18% in FY 2016-2017. Urea production was the highest in FY 2015-16. Domestic production of urea has been increasing indicating a trend of import substitution to be achieved soon.

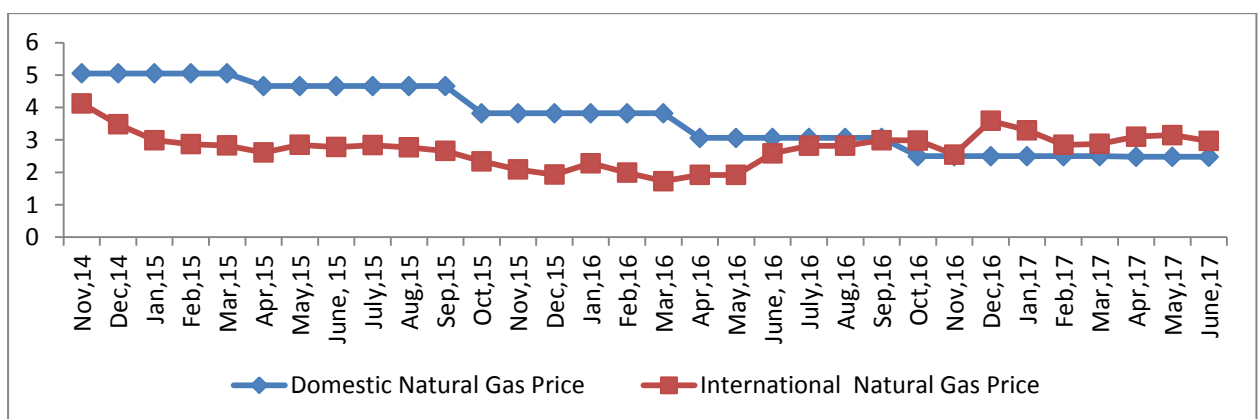
The quantity of Urea imported also has fallen considerably from FY2015-16 by 27% y-o-y basis in FY 2016-2017. Chart 5 the inner circle shows the urea production import mix of FY2012-13 and the outer circle shows the urea import production mix of FY2016-17. From 26.3% in FY2012-13 import dependence has reduced to only 18.5% in FY2016-17 vis-à-vis production has increased from 73.7% in FY2012-13 to 81.5% in FY2016-17, indicating that India is moving towards self-sufficiency of Urea Production. India plans to eliminate imports by 2022. Presently India mainly imports Urea from China Oman and Iran.

Out of the 30 large-scaled Urea Manufacturing units 27 are gas based and 3 are naphtha based. Natural Gas is the preferred feedstock. Natural gas is the key source of fertilizers in the form of Ammonia and Urea. Natural gas is preferred as:

1. It is intrinsically hydrogen rich and therefore contributes more hydrogen compared to other feedstocks on a unit weight basis.
2. The heavier feedstocks like coal and oil are more complex to process and therefore the capital costs are higher compared to natural gas.

Most of the Urea Manufacturing units in China are Coal based. China is also the world’s largest Urea exporter.

**Chart 6: Trend in Domestic and International Natural Gas Prices (USD/MMBTU)**



Source: PPAC and EIA

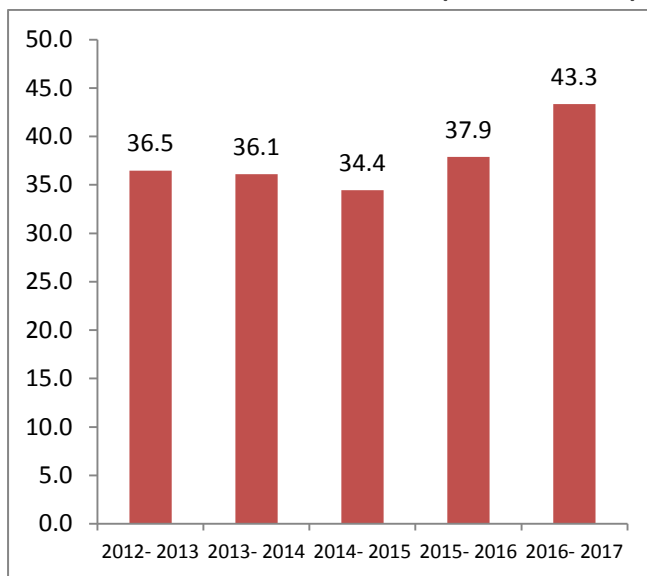
With a fall in Natural Gas prices in domestic and international markets, there is a good opportunity for reducing the cost of production of manufacturing fertilizers. It is estimated that for every 1 USD/mmbtu decline in gas prices, the total cost of domestic urea production can reduce by Rs.4,900 crore. With urea farm gate prices capped at Rs.5,360/MT, any variation in the cost of production is absorbed by government through subsidy.

Post July 1<sup>st</sup> with the introduction of Gas Pooling there has been uniformity in the prices of natural gas required by urea producing plants as well.

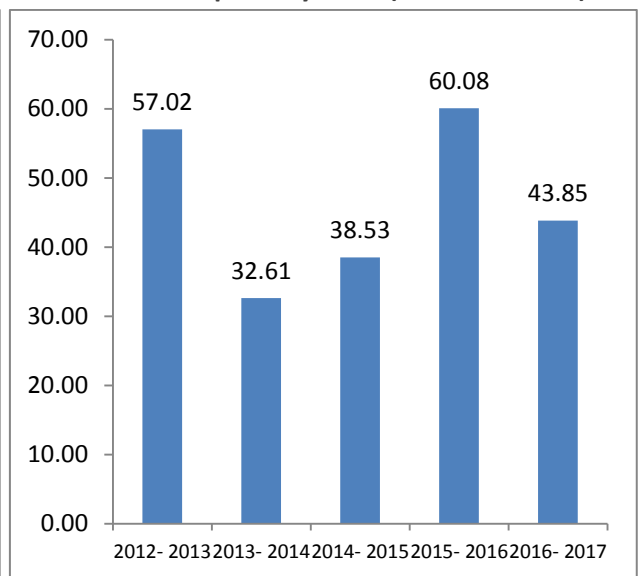
**Diammonium Phosphate (DAP)**

Diammonium Phosphate (DAP) is a concentrated fertilizer with high phosphorus and nitrogen content. It can be applied directly to soil or a mixture with other fertilizers and to all soil types. The best effects are achieved when applied prior to sowing. The major consumption of DAP is met through imports in the country. DAP falls under the decontrolled fertilizers. DAP and DAP blends are used on a range of crops in broad-acre farming, cereals, sugar cane, sowing pastures, dairy pastures, fodder crops and also in horticultural crops; for example, vegetables and tree crops.

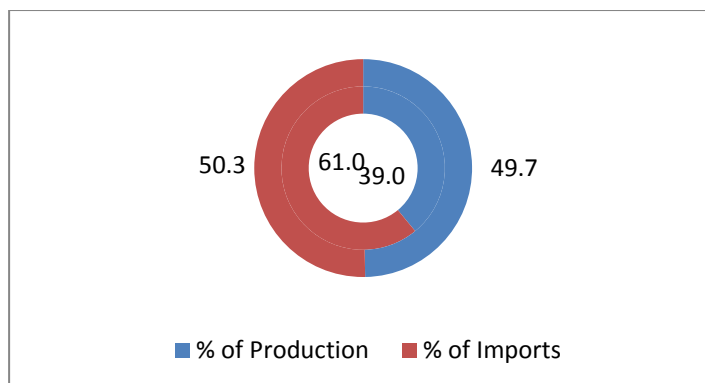
**Chart 7: Production of DAP in India (in units of LMT)**



**Chart 8: DAP imports by India (in units of LMT)**



**Chart 9: Trend of DAP Imports vis-à-vis DAP Production, FY 2012-13 v/s FY 2016-17**



Source: Department of Fertilizers

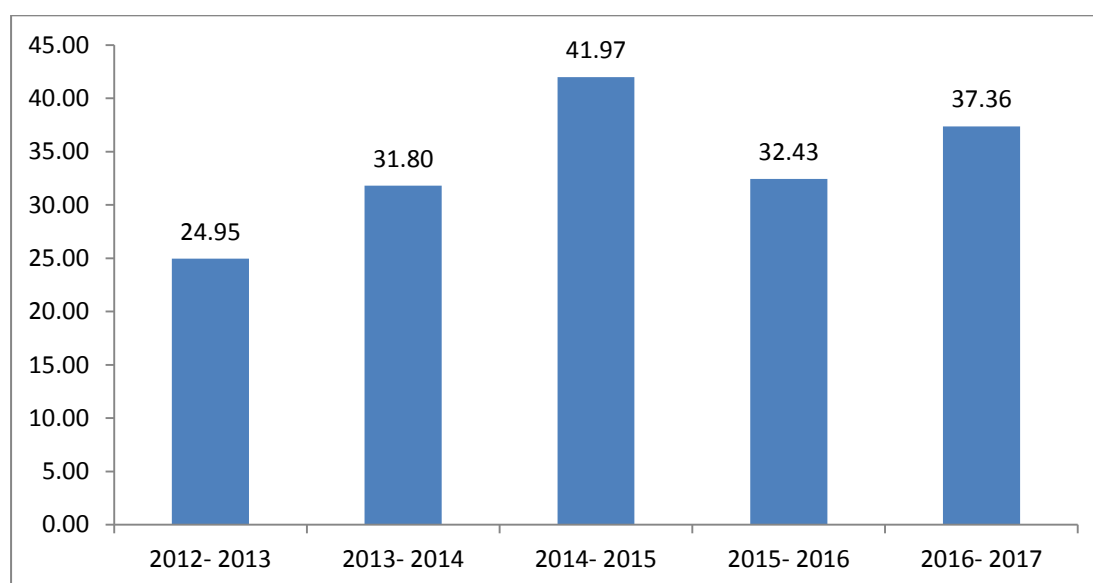
Domestic DAP production is growing at a robust rate of 4.41% CAGR from FY 2012-13 to FY 2016-17. DAP production levels have risen y-o-y by an increase of 14.4% from FY2015-16 to FY2016-17 as there was a fall in the prices of raw materials worldwide. The producers of DAP felt it was better to acquire the rock phosphate and phosphoric acid (key raw materials in DAP) and produce the fertilizer in the country itself instead of importing the end product. Hence on the other hand DAP imports by India have reduced y-o-y by a fall of 27% of the imports during the FY2015-16 to FY2016-17.

India imports DAP mainly from Canada, China, Jordan, Morocco, Russia, Saudi Arabia and USA. Chart 9 the inner circle shows the DAP production import mix of FY2012-13 and the outer circle shows the DAP production import mix of FY2016-17. From 61% in FY2012-13 import dependence have reduced considerably to 50.3% in FY2016-17 vis-à-vis production has increased from 39.0% in FY2012-13 to 49.7% in FY2016-17.

**MOP**

Potassium chloride (commonly referred to as Muriate of Potash or MOP) is the most common potassium source used in agriculture, accounting for about 95% of all potash fertilizers used worldwide. Its nutrient composition is approximately: Potassium: 50% Chloride: 46%. The demand of MOP in India is entirely met out of imports.

**Chart 10: MOP imports by India (in units of LMT)**



Source: Department of Fertilizers

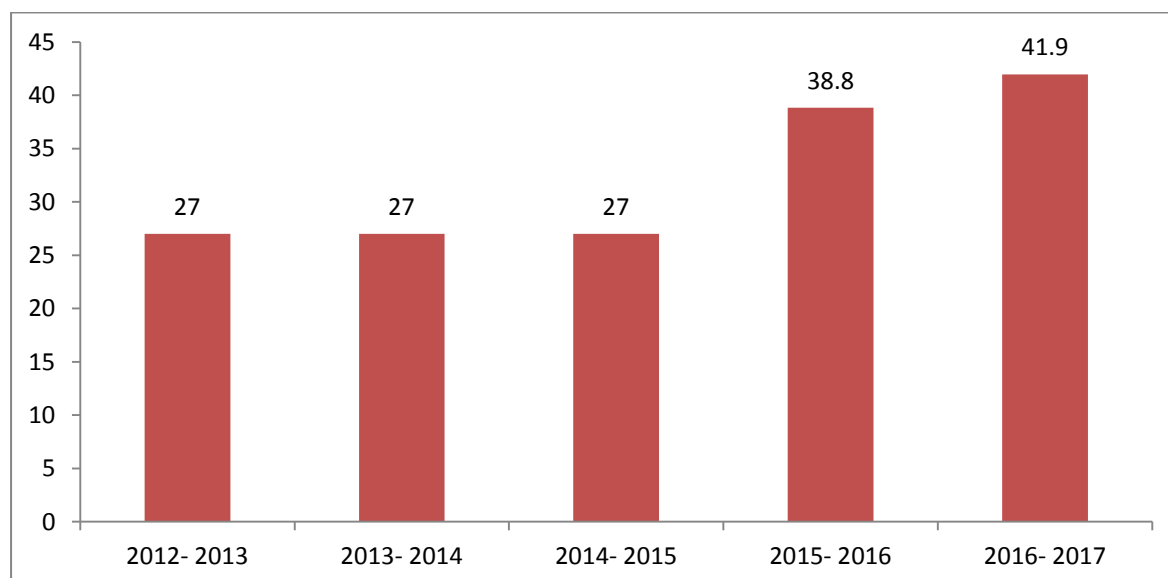
Muriate of Potash imports have increased by 15.2% on a y-o-y basis from FY2015-16 to FY2016-17. India mainly receives imports of MOP from Russia, Jordan, Israel, Canada, CIS + Belarus, Germany and Lithuania. MOP is used extensively for fertilizing pastures, sugar cane, fruit trees, vegetables, and other field crops.

**SSP**

Single superphosphate (SSP) was the first commercial mineral fertilizer and it led to the development of the modern plant nutrient industry and it is indigenous. This material was once the most commonly used fertilizer, but other phosphorus (P) fertilizers have largely replaced SSP because of its relatively low P content. SSP is a phosphatic multi-nutrient fertilizer, which contains 16% phosphate, 11% sulphur, 16% calcium and some other essential micro-nutrients. Because of the simple

production technique, it is one of the cheapest chemical fertilizer available. It is more suited for crops like oilseeds, pulses, horticulture, vegetables, sugarcane, etc and for Sulphur deficient soils.

**Chart 11: Production of SSP in India (in units of LMT)**



Source: CMIE

SSP production is spurted a growth rate of 11.64% CAGR from FY 2012-13 to FY 2016-17. The level of production till FY2014-15 is the same as it was made mandatory for the SSP units to utilize minimum 50% of their recognized **production capacity or to produce 40 LMT, whichever is less**, per year to become eligible for subsidy under the Nutrient Based Scheme (NBS). However this norm was lifted on March 10<sup>th</sup>, 2016. Hence there has been a pick up on Fertilizer production from FY2015-16 onwards. An increase of 8% production is noticeable on a y-o-y basis from FY 2015-16 to FY2016-17.

### Government Initiatives and Subsidies offered towards the Fertilizer Sector

The Fertilizer Industry is highly regulated and monitored by the Government of India. According to the FY2017-2018 Budget Rs. 70,000 crores was allocated for the Fertilizer industry, to be given of as subsidies. The difference between the cost of production which is higher than the price at which the fertilizer is sold is paid by the Government in the form of subsidies.

**Table 2: Allocation of the Subsidy within the Fertilizer Sector**

	FY 2016-2017	FY 2017-2018	Percentage Change
Urea	51,000	49,768	-2.41%
Nutrient Based	19,000	20,232	6.48%
Total	70,000	70,000	

Source: GOI

Even though the Budget allocation towards the fertilizer subsidy is the same, there has been a change in the allocation of the subsidy, indicating that the Government is encouraging the use of the Decontrolled fertilizers (fertilizers under the Nutrient Based Scheme). The MRP of Urea is fixed as it is controlled by the Central Government and the difference between the maximum retail price (MRP) and the cost of production is reimbursed to manufacturers as subsidy by the central government.



Now in the case of the decontrolled fertilizers the MRP is not fixed it is upon the manufacturers so as to how they want to price it but the subsidy rate is fixed for each variant of the fertilizer group.

**Nutrient Based Subsidy:** Government of India is implementing the Nutrient Based Subsidy (NBS) policy w.e.f. 1st April 2010. The NBS deals with 22 grades of decontrolled fertilizers namely DAP, MAP, TSP, DAP Lite, MOP, SSP, Ammonium Sulphate and 15 grades of complex fertilizers. These fertilizers are provided to the farmers at the subsidized rates based on the nutrients (N, P, K & S) contained in these fertilizers. Additional subsidy is also provided on the fertilizers fortified with secondary and micronutrients as per the Fertilizer Control Order such as Boron and Zinc.

The subsidy given to the companies is fixed annually on the basis of its nutrients content (i.e. Nitrogen, Phosphate, Potash and Sulphur) on per kg basis which is converted into subsidy per tonne depending upon the nutrient content in each grade of the fertilizers. Under this scheme, Maximum Retail Price (MRP) of fertilizers has been left open and manufacturers/marketers are allowed to fix the MRP at reasonable level. *These rates are determined taking into account the international and domestic prices of P&K fertilizers, exchange rate, inventory level in the country.*

**Table 3: Per Kg Rates for Nutrients N P K S**

Nutrient Type	FY 2012- 13	FY 2013-14	FY 2014- 15	FY 2015-16	FY 2016-17	FY 2017-18
N	24	20.875	20.875	20.875	15.854	18.989
P	21.804	18.679	18.679	18.679	13.241	11.997
K	24	18.833	15.5	15.5	15.47	12.395
S	1.677	1.677	1.677	1.677	2.044	2.24

Source: Department of Fertilizers

The revision in the new subsidy rates is in line with changes in the input prices in the global markets. Hence the industry is unlikely to face any inventory loss, due to reduction in the subsidy rates of P&K nutrients.

**Table 4: Per MT Subsidy Rate for different P & K fertilizers**

Fertilizer Grade(N P K S)	FY 2012- 13	FY 2013-14	FY 2014- 15	FY 2015-16	FY 2016-2017
DAP (18-46-0-0)	14350	12350	12350	12350	8945
MOP (0-0-60-0)	14400	11300	9300	9300	9282
SSP (0-16-0-11)	3676	3173	3173	3173	2343

Source: Department of Fertilizers

**New Urea Policy 2015:** The New Urea Policy was introduced with the main purpose to ensure the maximum production of indigenous urea by promoting the use of energy efficient feedstock which will help rationalize and bring down the subsidy burden. The NUP focuses on making the domestic urea sector become globally competitive in terms of energy efficiency. It is expected that there would be reduction in the subsidy burden of the government in two ways –

- Reduction in specific energy consumption norms and
- Import substitution on account of higher domestic production.

It is expected that the new urea policy will lead to additional production of 1.7 LMT annually in the next three years. The Union Government also subsidizes the urea manufacturing units for the cost of transportation to facilitate the availability of urea at the same maximum retail price all over the country.

**Neem Coating of Urea:** As per notification Vide Department of Fertilizers dated on 25.05.2015 all the urea producers in country had to mandatorily produce 100% of their total production of subsidized urea as Neem Coated urea. Use of neem coated urea has also increased crop yield the output of crops by about 10% on average, according to statistics produced by the food and agricultural ministry. It is the most cost effective way to preserve the Nitrogen component in the fertilizer. It is estimated that spraying Neem oil slows the release of Nitrogen by 10-15%, thus, in effect, reducing the urea requirement to that extent. *The ministry found a 5.8% increase in paddy yield after the use of sprayed urea and increase of 17.5% in the yield of sugarcane, yields of tur (a kind of pulses) and red gram jumped by 16.9% and that of soybean by 7.4% and corn to the extent of 7.1%.*

Neem coating of urea was introduced so it could aid save a substantial chunk of the Rs 55,000 crore subsidies given on urea fertilizer every year. Since NCU cannot be used for industrial purposes, illegal diversion of subsidized urea to non-agricultural use would not be possible. By curbing this illegal diversion of Urea for non-agricultural purposes, the government aims to prevent subsidy leakages as subsidized urea from India was also getting transported illegally to other nearby countries.

This initiative has fostered rural employment amongst women who help in picking up the neem leaves and help in the production of the neem oil and neem cakes.

**Gas Pooling for the Fertilizer (Urea) Sector:** Under this policy from July 1st 2015 onwards the Government of India proposed pooling of Domestic Gas with Re-Gasified LNG which is imported. This would help provide natural gas at uniform delivered price to all Natural gas grid connected Urea manufacturing plants. The cost of gas, which is the most important component for production of urea, varies from plant to plant owing to differential rates at which imported LNG is contracted as well as cost of transportation. The move would help bring down the cost of fuel. This move will help save about Rs. 1550 crores in subsidy and help urea manufacturing plants focus on their core business operations.

As part of the plan, an Empowered Pool Management Committee was formed with representatives from the ministry of petroleum & natural gas, department of fertilizer, department of expenditure, and GAIL (India). The committee would approve the plant-wise gas supplies to be made under the gas pool mechanism. The department of fertilizer will also determine the total requirement of natural gas. The ministry has proposed making GAIL the pool operator, to arrange imports after considering domestic availability and averaging both the prices.

**Direct Transfer Benefit in the Fertilizer Industry:** The introduction of Direct Transfers Benefit in the Fertilizer Industry has been a boon to the fertilizer sector. Under the DBT scheme the subsidy will be released to the fertilizer companies instead of the beneficiaries, after the sale is made by the retailers to the beneficiaries. When DTB was introduced first in the fertilizer industry the subsidy was given on the dispatch of the materials was from their respective factories. After a few revisions, on the disbursement of the fertilizers the subsidy was getting paid at a railhead point or any approved godown of a district.

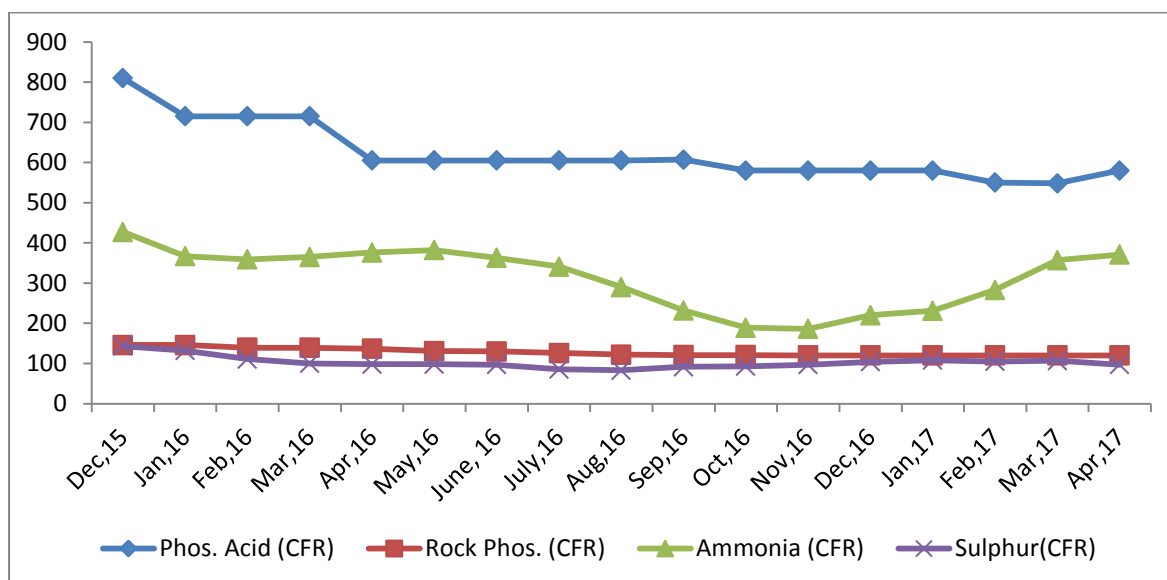
Now under the proposed new system, payment of subsidy is to be based on weekly settlement of claims from actual sales data captured on POS machines after the sale is made by the retailers to the beneficiaries on submission of claims generated in the web-based online Integrated Fertilizer Monitoring System (iFMS) by fertilizer companies. The DBT scheme should help curb the issues relating to diversion and smuggling of urea.

### **Joint Ventures Agreements in the Fertilizer Sector**

The Government of India is encouraging fertilizers companies to establish joint ventures abroad in Countries which are rich in fertilizer resources for production facilities with buy back arrangements and to enter into long term agreement for supply of fertilizers and fertilizer inputs to India. Fertilizers companies need Natural Gas, Ammonia, Phosphoric Acid, Rock Phosphates,

and Sulphuric Acid as raw materials for production of fertilizers. Further, the Department of Fertilizer is also working with the goal of having access to acquisition of the fertilizer raw materials abroad.

**Chart 12: Prices of Raw Materials used for Fertilizer Production (USD/MT)**



Source: Department of Fertilizers

Prices of phosphoric acid has fallen by about 28% from USD 810/MT in December 2015 to USD 580/MT in April 2017. Rock phosphates prices has fallen by about 18% from USD 146/MT in December 2015 to USD 120/MT in April 2017. Ammonia prices has fallen by about 13% from USD 427/MT in December 2015 to USD 371/MT in April 2017. Sulphur prices have fallen by about 32% from USD 143/MT in December 2015 to USD 97/MT in April 2017.

**Table 5: Existing Joint Venture Projects**

Sr. No.	JV Project-Country	JV participants with equity %	Product and the Project status
1	Oman India Fertilizer Co.(OMIFCO), Oman	Oman Oil Co. (OOC-50%), IFFCO (25%) & KRIBHCO (25%)	16.52 lakh MT Urea & 2.48 lakh MT Ammonia. Production started in the year 2006.
2	ICS Senegal, Senegal	ICS Senegal and IFFCO consortium	5.5 lakh MT phosphoric acid. Production already started.
3	JPMC-IFFCO JV, Jordan	JPMC & IFFCO	4.8 lakh MT Phosphoric acid. Commercial production started in December 2014.
4	IMACID, Morocco	OCP-Morocco, Chambal & TCL – 33% each	4.25 lakh MT phosphoric acid. Production started in year 1997-98.
5	Tunisia-India Fertilizer Company (TIFERT), Tunisia	GCT (Tunisia), CFL (Now CIL) & GSFC (India)	3.60 lakh MT of Phosphoric acid. Commercial production started in April 2014.

Source: Department of Fertilizer

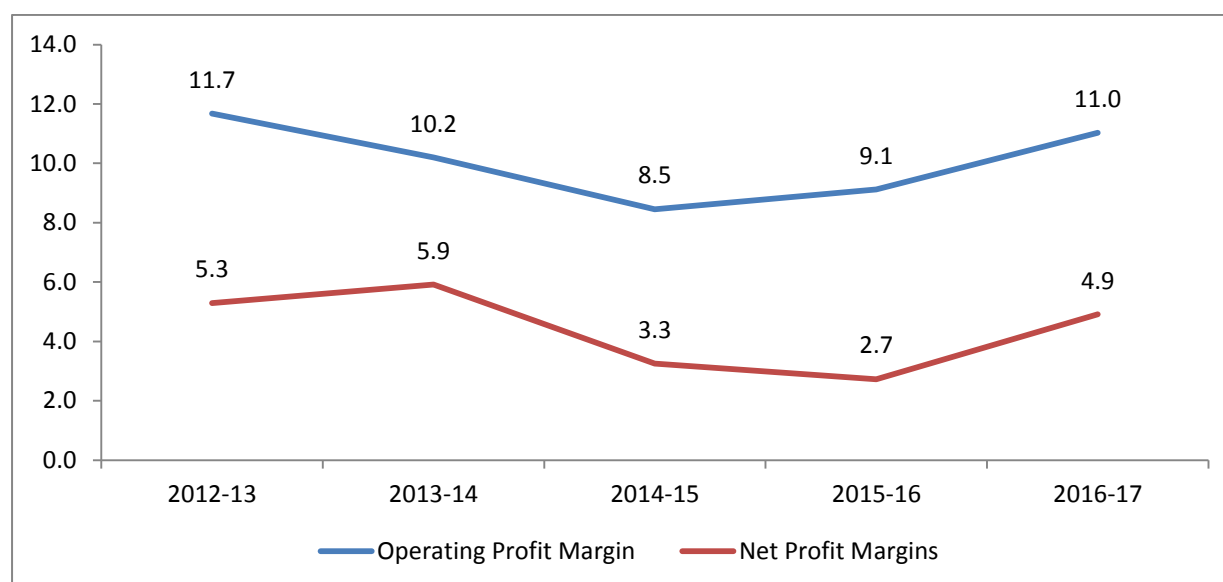
**Table 6: Joint Ventures with countries which are still under consideration**

Sr. No	Country	Entities	Product	Offtake Agreement
1	Iran	RCF, GNFC and GSFC from Indian side and one prospective partner from Iran	Urea and Ammonia	8.25 LMT per annum Ammonia and 12.7 LMT per annum Urea
2	Russia	NMDC, RCF, FACT, KRIBHCO, NFL and ACRON (Russia)	Potash	30 % stake in the fertilizer project
3	Canada	RCF, FACT and ENCANTO (Canada)	Potash	1.8 Million tonnes per annum for 17 years

Source: Department of Fertilizer

**Financials of 19 Fertilizer Companies**

**Chart 13: Operating and Net Profit Margins (in %)**



Source: Ace Equity

The financials of the fertilizer sector is highly subjective as it dependent on the changes of government policies and regulations. The profitability of the industry was affected during FY 2013-14 and FY 2014-15 as even though globally prices of raw materials was falling, rupee was depreciating which has affected the profits of the sector as raw materials needed to manufacture fertilizers are imported.

Gas pooling of urea was introduced on 1<sup>st</sup> July, 2015 which has helped in improving the operating and net profit margins from FY 2015-16 onwards. Faster subsidy clearance is also one of the key reasons so as to an improvement in the profitability companies operating in the fertilizer sector.

## Conclusions/ Outlook

The Government has been active in clearing outstanding subsidies while there was an outstanding subsidy of nearly Rs. 35,000 in FY2015-16, it has come down to Rs20, 000 crore in the last fiscal.

- This has benefitted the fertilizer manufacturing companies as it has revived the operating and net profits of the companies from FY 2015-16 onwards.

To achieve sustained agricultural growth it will require the following: improve productivity, diversify production towards high value agriculture and shift a major portion of farm employment to non-farm activities. Raising productivity requires large investments in Agri-R&D, irrigation and fertilizers and therefore it throws huge opportunities to the fertilizer sector.

- This measure could also help in promoting a balanced use of fertilizers in the coming years. Though India ranks globally the largest agricultural economy its crop yields remain marginal. The root causes could be attributed to misuse of fertilizers by the farmers. Urea being cheaper than the rest of the fertilizers is the most used fertilizer. This has caused the soils levels to deteriorate. The ideal NPK ratio is 4:2:1 whereas Indian soils the ratio is 6.8:2.7:1.
- This would better sales of DAP and other Complex fertilizers. As soil health is a concern, the government introduced the Soil Health Card.

Fertilizer production in India is growing at a CAGR of 4% from FY 2012-13 onwards. **CARE Ratings Estimates that fertilizer production would range between 460-470 LMT by 2020.** Going forward the fertilizer sector is subject to tremendous growth due to various factors.

- The Make in India initiative is encouraging the production of fertilizers within the country to an extent the government wants to eliminate the imports of urea by 2021 and make India self-sufficient.
- The overall domestic production of fertilizers is has been up since the past 3 years and our imports are falling.
- The Government has been very proactive by introducing reforms time to time to help pick up pace for the production of fertilizers like under the New Urea Policy, the government is incentivizing production beyond reassessed capacity.
- The Government along with cash rich PSUs in coal and oil sector are jointly investing over Rs. 50,000 crores to revive closed fertilizer plants and setting up gas pipelines which would make India self-sufficient in Urea manufacturing.

The Government of India had introduced the gas pooling of urea on 1<sup>st</sup> July 2017.

- Gas pooling for urea at the moment we are currently in the under the first phase in which is pooling of gas for existing units along with the conversion of units, (Urea manufacturing units which use Naphtha as their feedstock) which will be supplied gas as and when the pipeline connectively is established.
- By 2018 India will be entering the second phase of the pooling of gas in which the requirements of existing units (including conversion units) and proposed brownfield and Greenfield units will be considered.

- CARE Ratings estimates this will help urea manufacturing units as Natural gas is a preferred feedstock which will bring down the cost of manufacturing domestic urea. Gas price pooling will also bring about energy efficiency.
- **It is estimated that for every 1 USD/mmbtu decline in gas prices, the total cost of domestic urea production can reduce by Rs.4,900 crore. It will help in bringing down at least 8-10% of the subsidy allocation towards urea from the budget which is given out as subsidies.**

The Direct Transfer Benefit will soon be deployed across the country from August 2017 onwards, since the pilot projects have indicated a success. The POS machines will capture details of the farmer, his aadhaar number, details of the retailer, the product purchased, the farm land in which the commodity is used, health of the soil, land ownership details if available and the opening and closing stock of every retailer.

- This will help to bring soil health in focus and curb any pilferages and leakages in the subsidy reimbursement process as every sale made will be recorded in the POS machine which in turn will make sure the manufacturer will receive the subsidy in a day or two and it will ensure the fertilizer is received by the farmer himself.
- Timely outgo of the subsidy will ensure the interest coverage of the fertilizer companies to reduce considerably which will further revive the profits of these companies. DBT will also help in reducing the working capital pressures of these companies.

With the recent farm loan waiver taking place and approved in the States of UP, Maharashtra, Karnataka and Punjab, we can expect a financial relief towards the farmers. This could also have a positive effect on the fertilizer sector

- IMD has also predicted a normal monsoon for this fiscal year hence proving it to be beneficial for the growth of the fertilizer sector in the coming months, given there was a good crop year in 2016-17.

In the pre-GST regime, fertilizers attracted 4-8% indirect tax depending on the raw materials used and the states in which the products were sold.

- Now with the GST rollout Fertilizers will attract a 5% tax slab and the raw materials which are used for the manufacturing of fertilizers are taxed under the 18% tax slab.
- Farmers in states such as Haryana, Punjab and Andhra Pradesh will find the purchase of fertilizers expensive as earlier they were exempt from VAT.
- With raw materials being charged at 18%, an inverted duty structure is being created. This could lead to a potential rise in the prices of the fertilizers. To ease the burden of the manufacturers, CARE Ratings believes that a revision in the rate to 12% or 5% will benefit the manufacturers.

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