15 February 2012 | 24 pages

Global Fertilisers

Indian Fertiliser Subsidy Scheme — Costs Versus Yields

- **Industry Overview**

- **Indian Subsidy Cutbacks a Major Risk to FY12 Fertiliser Demand** — Higher international prices, a weaker rupee and the Indian Government's goal to limit the fiscal impact of surging fertiliser subsidies has resulted in significantly higher DAP (>180%) and MOP (>100%) prices to farmers since the implementation of the country's new subsidy scheme in April 2010. Farmer price increases are far greater than international price gains over the same period (~15% & ~45%, respectively, for DAP and MOP) and have resulted in demand destruction of 20-25%. DAP and MOP subsidies may fall in 2012/13, and could pressure imports (by up to 1mT for each). This could risk over-supply given India accounts for ~45% (~7mT) of global DAP trade and ~15% (~6mT) of MOP trade.

- **We Prefer Urea Stocks** — While DAP & MOP prices have increased, urea has remained at a very low (~$115/T) and fixed price to the India farmer. Urea was also allocated >50% of the total $11-12bn fertiliser subsidy budget. Thus urea demand has remained intact. India's domestic urea industry has capacity of ~22mT (>3x the size of the DAP industry). We believe one of its key advantages of scale is its relatively louder lobbying voice. We have Buy (1) ratings on China BlueChemical, CF Industries, Industries Qatar, Orascom Construction, Sinofert & Yara. Any change to the urea subsidy programme is a risk, although we think significantly higher prices are unlikely.

- **MOP in a Relatively Better Position than DAP** — While DAP & MOP have suffered demand destruction (20-25%) as a result of higher farmer prices we relatively prefer MOP. Our reasons are: 1) it is cheaper than DAP (absolute prices are the key driver of fertiliser demand in India); 2) NBS subsidy economics for 2012/13 imply a MOP importer breakeven price of ~$490/T (in line with current Indian prices) whereas the DAP breakeven of $613/T implies a 10% cut to the 2H11 contract price of $677/T cfr; 3) India has no domestic source of potash and so must import; and 4) Indian demand is more relevant for DAP as it accounts for a larger proportion of global trade (~45%) versus MOP (~15%). In potash, we have Buy (1) ratings on Israel Chemicals, K+S & Potash Corp. Despite potential challenges to Indian demand we would highlight our Buy (1) ratings on IPL & PhosAgro, where we believe valuations remain attractive.

- **India Faces a Dilemma** — India's immediate objective is to contain its fertiliser subsidy spending. However, this may not complement its aim to achieve broader fertiliser application. India over-applies urea (it accounts for >80% of fertiliser application). This is negatively affecting yields. India's rice yields are even below those of its developing market neighbours. India also has over a billion people to feed where food accounts for as much as 50% of disposable income on average. Legislative elections are to be held in seven states this year, along with Presidential elections in July. We believe India's fertiliser subsidy and food costs will remain a key challenge for the government.

MENA

Heidy Rehman
+971-4-509-9746
heidy.rehman@citi.com

North America

P.J. Juvekar
+1-212-816-3097
pj.juvekar@citi.com

Daniel Jester
+1-212-816-5341
daniel.jester@citi.com

Pan-Europe

Andrew Benson
+44-20-7986-3925
andrew.benson@citi.com

Dominik Frauendienst
+44-20-7986-4299
dominik.frauendienst@citi.com

Russia

Daniel Yakub
+7-495-642-7693
daniel.yakub@citi.com

Asia-Pac

Oscar Yee
+852-2501-2473
oscar.yee@citi.com

Trevor Huynh
+61-2-8225-4821
trevor.huynh@citi.com

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Summary

India's NBS (Nutrient Based Subsidy) scheme has become a particular focus for investors given the recent rise in DAP and MOP prices to the farmer along with subsequent demand destruction.

India is a key focus for fertilisers given it accounts for the following:

- ~20% of global urea trade (~7mT)
- ~45% of global DAP trade (~7mT)
- ~15% of global MOP trade (~6mT)

In this note we set out an overview of India's fertiliser subsidy schemes.

To summarise however we would highlight the following:

Preference for urea stocks

We have Buy (1) ratings on the urea stocks in Figure 1. We set out valuation tables in Figure 23 at the back of this note.

Figure 1. Urea Stocks – Top Picks

Company	Country	RIC code	BBG code	Currency	Current Price	Target Price	ETR %
China BlueChemical	China	3983.HK	3983 HK	HKD	6.2	7.8	29%
CF Industries	United States	CF.N	CF US	USD	180	194	8%
Industries Qatar	Qatar	IQCD.QA	IQCD QD	QAR	134	140	9%
Orascom Construction	Egypt	OCIC.CA	OCIC EY	EGP	260	280	14%
Sinofert	China	0.297.HK	297 HK	HKD	2.4	2.8	25%
Yara	Norway	YAR.OL	YAR NO	NOK	256	360	28%

Source: Powered by dataCentral. Note: dataCentral is CIRA's proprietary database which includes Citi's estimates for rated stocks, data from company reports and feeds from Reuters, Datastream, FirstCall, IBES and Toyo Kezai for non-rated stocks. Priced as at 13 February 2012.

The key reason for our positive stance is that urea prices to the Indian farmer remain relatively the lowest at ~$115/T. This low fixed price seems set to hold.

Indian urea demand seems set to remain intact given the price to the farmer is fixed at a very low c.$115/T.

We would note that there have been various initiatives to raise the price of urea to the farmer. The most recent was for a 40% increase. However, this has been rejected by India's Department of Fertilisers (DoF).

Figure 2. India – Current Fertiliser Prices to the Farmer (Rs /T & $/T)

	Urea	MOP	DAP
Price to the Indian farmer (Rs /T)	5,310	12,000-12,600	18,200-19,000
Price to the Indian farmer ($/T)	115	261-274	396-413
Current Average International Market Price ($/T)	410	500	545

FX rate: Rs 46: $1

Source: FAI (Fertiliser Association of India) & CIRA

Price is the key driver of farmer fertiliser demand in India; despite the potential impact to yields from imbalance fertiliser application.

While an increase in urea prices remains a risk, we believe it is unlikely (given powerful government lobbying by India's domestic urea industry). We thus believe Indian urea demand will remain intact.

Indeed farmers may even choose to substitute urea for other more expensive fertilisers. Unlike their developed market counterparts, Indian farmers do not generally have access to scientific farming techniques. Their choice of fertiliser is predominantly driven by price. This is underlined by the fragmented nature of India's agricultural industry.

Then DAP followed by MOP

We are relatively more cautious on MOP but more so on DAP.

Both have suffered demand destruction as a result of higher prices to the farmer. Indeed the FAI forecasts 2012/13 imports to decline by ~15% (to ~6mT for DAP and just over 5mT for MOP).

MOP is relatively cheaper to the Indian farmer, appears to have better 2012/13 NBS economics & has to be imported.

However, we would relatively prefer MOP given:

- It is cheaper to the Indian farmer than DAP and is therefore more likely to be displaced (see Figure 2).
- NBS economics on MOP for the upcoming 2012/13 NBS scheme imply an importer breakeven price of ~$490/T (which is broadly in line with what India is paying). For DAP the breakeven implies a price of $613/T cfr (i.e. a 10% cut on the 2H11 IPP of $677/T cfr).
- India also has no domestic source of potash and so must import.
- India is more relevant for DAP given it accounts for a larger proportion of global trade (~45%) versus MOP (~15%).

We set out detail of breakeven prices in Figure 18 on page 13.

Our top picks in potash are highlighted in Figure 3.

Figure 3. Potash Stocks — Top Picks

Company	Country	RIC code	BBG code	Currency	Current Price	Target Price	ETR %
Israel Chemical	Israel	ICL.TA	ICL IT	ILS	40.5	50.0	31%
K+S	Germany	SDFGn.DE	SDF GR	EUR	39.7	60.0	54%
Potash Corp	Canada	POT.N	POT US	USD	44.7	54.0	22%

Source: Powered by dataCentral. Priced as at 13 February 2012.

The key risks to potash are: 1) India taking a stake in Belaruskali and 2) delays to this year's contract negotiations (which seem likely to start mid-year).

We would note that the key potential downside risk for MOP is whether India takes a stake in Belaruskali (not listed).According to press reports (source: Bloomberg) the Indian Government is considering the acquisition of a 20-25% stake in Belaruskali. It has made no comment on these reports. If this were to transpire this would destabilise the current potash oligopoly, in our view. Pricing would likely fall given the resulting change in bargaining power of a major customer.

We also note that we would most likely expect mid-year potash price negotiations for India given the delay to a number of its potash shipments for 2011/12. This would be underlined if developed market demand continues to falter.

For information, we include our top DAP stocks where we believe valuation remains supportive.

Figure 4. DAP Stocks — Top Picks

Company	Country	RIC code	BBG code	Currency	Current Price	Target Price	ETR %
Incitec Pivot	Australia	IPL.AX	IPL AU	AUD	3.4	4.3	30%
PhosAgro	Russia	PHORq.L	PHOR LI	USD	10.3	21.0	132%

Source: Powered by dataCentral. Priced as at 13 February 2012.

India is a Major Importer of Fertilisers

India is a key focus for fertilisers as it accounts for the following:

- ~20% of global urea trade — at ~7mT this equates to ~25% of India's average annual consumption.
- ~45% of global DAP trade — at ~7mT this equates to ~60% of India's average annual consumption.
- ~15% of global MOP trade — at ~6mT India imports its total requirements (as it has no domestic source of supply).

With a significant agricultural industry….

India should continue to be a major consumer of fertilisers given the following:

Agriculture accounts for 17% of India's GDP.

- Population — over 1bn
- Agricultural land as a percentage of total land mass — 43%
- Agriculture as a percentage of GDP — 17%
- Agriculture as a percentage of total exports — 10%
- Agricultural workforce as a percentage of total workforce — >50%
- World's second largest producer of rice, wheat, sugarcane, tea and fruits & vegetables

…that is highly fragmented

India's farming industry is made up of:

Over 80% of India's farm holding are <2 hectares.

- Operational farm holdings — totalling ~129m hectares
- Of which most are small or marginal (i.e. <2 hectares) — 83%

This contrasts markedly with the industrialised landscape and techniques of developed markets, such as the US.

This also partly explains India's soil deficiency and over-application of urea (see page 14).

India's Fertiliser Subsidy Rocketed to Over $20bn in 2008

India has subsidised fertilisers for over three decades. From 2002 the subsidy was effectively set as follows:

The delivered market price less the fixed price to the farmer

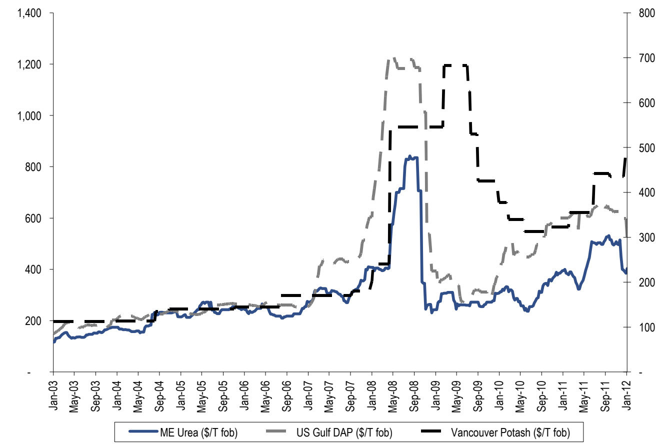
This subsidy was always been paid to the Indian importer (despite various initiatives for it to be paid directly to the farmer).

Under this scheme India set government-fixed Maximum Retail Prices (MRPs). This applied to 19 specific fertilisers (Urea, DAP, MOP, MAP, TSP, SSP, AS and 12 grades of complex /blended fertilisers). For urea, DAP and MOP the MRPs were as follows:

- Urea — Rs 4,830/T (or $105/T[1])
- DAP — Rs 9,350/T (or ~$203/T)
- MOP — Rs 4,455/T (or ~$97/T)

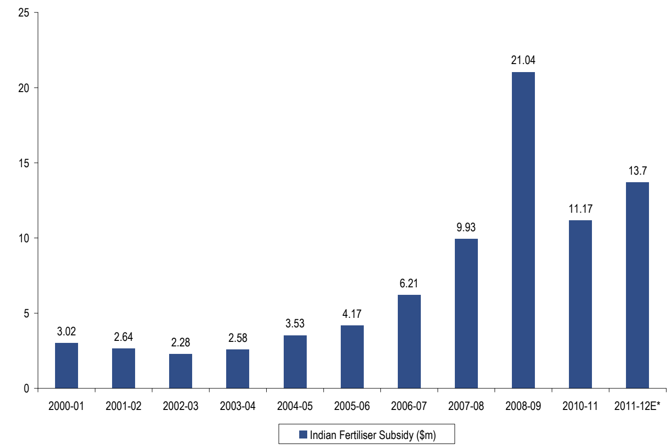
When fertiliser prices peaked in 2008 (see Figure 6) India's subsidy budget exceeded ~$20bn (or almost 2% of GDP).

Figure 5. Urea, DAP & MOP Prices, Jan-03 — Feb-12 ($/T fob)



Source: FMB, Green Markets & CIRA.

Figure 6. Indian Fertiliser Subsidy, 2000-12E ($m)



* Allocations so far for 2011-12 from the Ministry of Finance. However this figure could rise to ~$20bn.

NB: India's agricultural year runs from start April to end March.

Source: Citi Investment Research and Analysis

India's NBS Scheme Aimed to Cap its Fertiliser Subsidy

In a bid to control its fertiliser subsidy spending, India introduced its Nutrient Based Subsidy (NBS) scheme in April 2010.

India aimed to cap its subsidy at ~$11-12bn; albeit with carve-outs for urea.

The initiatives and key changes to the scheme were as follows:

- A targeted maximum subsidy cap of ~$11-12bn.
- With an allocation per nutrient (see Figure 8).

Prices to the farmer were raised by ~10% although urea remained fixed. DAP & MOP were decontrolled, implying importers could raise prices further.

- Urea pricing to the farmer was to remain fixed although at a raised (+10%) MRP of Rs 5,310/T (or ~$115/T).
- Phosphate and potash fertilisers were decontrolled, i.e. prices to the farmer could be raised by the importer /manufacturer (although subject to government approval). However, increases were to be limited. DAP was set at Rs10,750/T (or ~$235/T) while MOP was set at Rs5,055/T (or ~$110/T).
- The setting of fixed import parity prices for DAP and MOP contracts, with only primary freight being borne by the government.

[1] At the prevailing FX rate of Rs 46 : $1.

Figure 7. India NBS Scheme – Allocated Subsidy Per Tonne, 2010-12 (Units As Stated)

	2010-11		2011-12		Yoy Change %
Fertiliser	**Subsidy (Rs/T)**	**Subsidy ($/T)**	**Subsidy (Rs/T)**	**Subsidy ($/T)**	
DAP	18,474*	401	19,763	430	+7%
MAP	16,219	353	19,803	431	+22%
NPK: 14-35-14-0	15,877	345	18,866	410	+19%
DAP Lite	n/a	n/a	18,573	404	n/a
NPK: 10-26-26-0	15,521	337	18,080	393	+16%
NPK: 12-32-16-0	15,114	329	17,887	389	+18%
MOP	14,692	319	16,054	349	+9%
NPK: 19-19-19-0	14,058	306	16,387	356	+17%
NPK: 14-28-14-0	14,037	305	16,602	361	+18%
NP: 28-28-0-0	13,861	301	16,657	362	+20%
NPK: 17-17-17-0	12,578	273	14,662	319	+17%
TSP	12,087	263	14,875	323	+23%
NP: 24-24-0-0	n/a	n/a	14,278	310	n/a
NPK: 16-16-16-0	n/a	n/a	13,800	300	n/a
NP: 23-23-0-0	11,386	248	13,683	297	+20%
NPK: 15-15-15-09	n/a	n/a	13,088	285	n/a
NPK: 15-15-15-0	11,099	241	12,937	281	+17%
NPS: 20-20-0-13	10,133	220	12,116	263	+20%
NP: 20-20-0-0	9,901	215	11,898	259	+20%
NPS: 16-20-0-13	9,203	200	11,030	240	+20%
AS: 20.6-0-0-23	5,195	113	5,979	130	+15%
SSP	4,400	96	5,359	117	+22%

* Raised to this level from the initial Rs 16,268/T. The raised subsidy was based on an Import Parity Price (IPP) of $580/T cfr for DAP.

NB: n/a designations reflect those fertilisers that were only included in the NBS scheme from 2011-12.

Applied FX rate: Rs 46 : $1

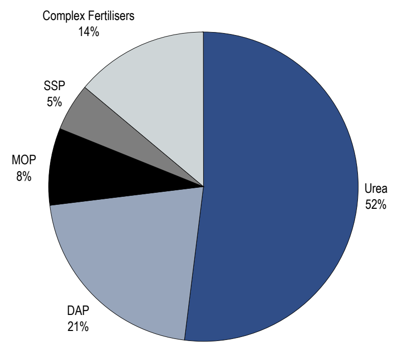
Source: FAI & CIRA

Urea got the best deal and still does

Urea (and thus its producers and importers) benefited from the new scheme on two fronts:

- Urea was allocated the largest proportion of the subsidy, i.e. >50% (see Figure 8).
- Importantly, urea was also not decontrolled. Urea pricing has remained at a very low fixed price to the Indian farmer, i.e. $115/T. This has encouraged demand but also over-application.

Figure 8. India — Subsidy Allocation by Fertiliser, 2010-11



Source: FAI

How it was meant to work

Overall the aim was to ensure that the applied subsidy plus the price to the farmer covered any necessary import /production costs (as well as allowing for a small margin) — see Figure 9.

The aim was to cap but also cover import /production costs and to encourage broader fertiliser application.

On this basis, this should have encouraged DAP and MOP imports, thus leading to more balanced fertiliser application.

The key variables in the calculations made by India's Department of Fertilisers (DoF) were:

- **Import parity pricing** — India's DoF based its FY IPPs (Import Parity Prices) for DAP and MOP based on prevailing price levels and did not incorporate potential increases.
- **FX rate** — India's DoF based this on its historical average rate (see Figure 12).
- **Subsidy** — India's DoF based this on the proportion allocated to each nutrient as part of its fertiliser subsidy cap of $11-12bn.

India imputed a number of variables to arrive at manageable farmer DAP & MOP pricing.

- **Prices to the farmer** — Based on the above, India's DoF arrived at prices to the farmer which implied only a c.10% increase on the previous MRP levels.

Figure 9. Initial Indian NBS Economics for DAP & MOP, 2010-11 (Units As Stated)

	DAP	MOP
Initial Estimated DAP /MOP import parity price ($/T)	500	350
Assumed FX rate: Rs /$	46	46
DAP /MOP import price (Rs/T)	23,000	16,100
Customs duty at 5.15% (Rs/T)	1,185	829
Stevedoring charges (Rs/T)	700	700
Bagging costs (Rs/T)	200	200
Dealer's Margin (Rs/T)	275	275
Costs less internal freight (Rs/T)	25,360	18,104
Standard importer margin (Rs/T)	600	600
Total cost less internal freight (Rs/T)	25,960	18,704
Subsidy (Rs/T)	16,268	14,692
Initial Price to the Farmer (Rs /T)	10,750	5,055
Implied recovered cost (Rs/T)	27,018	19,747
Revenue less costs excl domestic freight* (Rs/T)	1,059	1,043

* Indian domestic freight costs can vary from Rs 800-4,000/T depending on distance & whether truck or rail.
Source: FAI and CIRA Estimates

What went wrong

Initially the NBS scheme was treated as a "work-in-progress" and so revisions were likely to be expected. However, the concern for investors has always been the risk of upward pressure on farmer prices. Indeed this began to transpire, albeit initially within relatively manageable levels.

Farmer prices started to rise when importer /producer costs could not be covered within the existing NBS IPP & subsidy parameters.

DAP assumptions needed upward revisions; farmer prices followed

Key within its assumptions, we would argue that India's DoF underestimated the potential rise in fertiliser prices, particularly for DAP. From the start April 2010 (when the new NBS scheme was implemented) to the end of the year, DAP prices increased 25% to close to $600/T fob (see Figure 5).

The DoF thus had to revisit its NBS DAP assessment. It raised its DAP IPP to $580/T cfr and the respective subsidy to Rs18,474/T.

Farmer DAP prices initially increased 16% on early revisions

However, this still left costs uncovered (Figure 10). This difference in cost was passed on to the farmer. Thus, at this stage, prices to the farmer started to rise.

Figure 10. Revised Indian NBS Economics for DAP (Units As Stated)

DAP import price ($/T)	580
Assumed FX rate: Rs /$	46
DAP import price (Rs/T)	26,680
Customs duty at 5.15% (Rs/T)	1,374
Stevedoring charges (Rs/T)	700
Bagging costs (Rs/T)	200
Dealer's Margin (Rs/T)	275
Costs less internal freight (Rs/T)	29,229
Standard importer margin (Rs/T)	600
Total cost less internal freight (Rs/T)	29,829
Subsidy (Rs/T)	18,474
Initial Price to the Farmer (Rs /T)	12,500
Implied recovered cost (Rs/T)	30,974
Revenue less costs excl domestic freight (Rs/T)	1,145

Source: Citi Investment Research and Analysis

Indeed farmer prices continued to rise

For the NBS scheme covering the 2011-12 agricultural year farmers saw a further increase in DAP and MOP pricing.

By 2012 DAP & MOP prices to the farmer had increased around 55% & 155%, respectively (since the start of the NBS scheme).

Figure 11. Initial Indian NBS Economics for DAP & MOP, 2011-12 (Units As Stated)

	DAP	MOP
DAP /MOP import parity price ($/T)	645*	500#
Assumed FX rate: Rs /$	46	46
DAP /MOP import price (Rs/T)	29,670	23,000
Customs duty at 5.15% (Rs/T)	1,528	1,185
Stevedoring charges (Rs/T)	700	700
Bagging costs (Rs/T)	200	200
Dealer's Margin (Rs/T)	275	275
Costs less internal freight (Rs/T)	32,373	25,360
Standard importer margin (Rs/T)	600	600
Total cost less internal freight (Rs/T)	32,973	25,960
Subsidy (Rs/T)	19,763	16,054
Price to the Farmer (Rs /T)	14,500	11,300
Implied recovered cost (Rs/T)	34,263	27,534
Revenue less costs excl domestic freight (Rs/T)	1,290	1,395

* 1H DAP IPP was set at $612/T cfr. For 2H11 this increased to $677/T cfr. Prices to the farmer similarly increased.

Average potash price (based on $470-530/T cfr depending on timing of delivery).

Source: FAI and CIRA Estimates

Then the rupee weakened….

Aside from the rise in global fertiliser prices, Indian importers /producers were also faced with a weakening rupee (see Figure 12).

Key to note is that the set subsidy along with the IPP for each nutrient is fixed, i.e. neither varies according to FX rates.

From the beginning of August to mid-December 2011 the Indian rupee versus the US dollar weakened from 44 to almost 54.

From the beginning of August to mid-December 2011 the Indian rupee versus the US dollar weakened by ~20%.

Figure 12. US Dollar Versus Indian Rupee, Jan-10-to-Date (Rupees)

Source: Reuters & CIRA

….and farmer prices went up further

At the peak of India's weakening rupee, the NBS scheme at maximum quoted farmer prices for DAP and MOP became uneconomic.

At the peak of India's weakening rupee, the NBS scheme at maximum quoted farmer prices for DAP and MOP became uneconomic. Indian importers also sought lower DAP & MOP prices.

Indian importers have since pressured DAP and MOP suppliers for price reductions. PhosAgro agreed to a $25-35/T cut to DAP pricing. However, the more consolidated MOP industry stood firm.

Figure 13. Indian NBS Economics for DAP & MOP At Weaker Rupee, 2011/12 (Units As Stated)

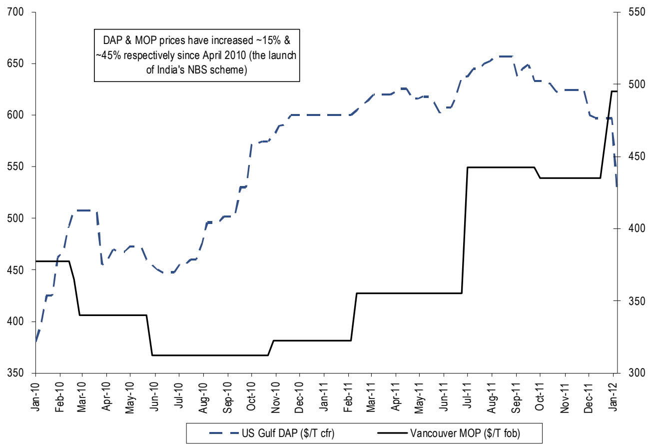
	DAP	MOP
DAP /MOP import parity price ($/T)	677	500
Assumed FX rate: Rs /$	54	54
DAP /MOP import price (Rs/T)	36,558	27,000
Customs duty at 5.15% (Rs/T)	1,883	1,391
Stevedoring charges (Rs/T)	700	700
Bagging costs (Rs/T)	200	200
Dealer's Margin (Rs/T)	275	275
Costs less internal freight (Rs/T)	39,616	29,566
Standard importer margin (Rs/T)	600	600
Total cost less internal freight (Rs/T)	40,216	30,166
Subsidy (Rs/T)	19,763	16,054
Price to the Farmer (Rs /T)*	19,000	12,600
Implied recovered cost (Rs/T)	38,763	28,654
Revenue less costs excl domestic freight (Rs/T)	-1,453	-1,512

* Max of quoted range of Rs 18,200-19,000/T for DAP and Rs 12,000-12,600/T for MOP.
Source: FAI and CIRA Estimates

Overall farmer prices for DAP and MOP had risen by >100% and >180% respectively (since the introduction of the NBS scheme).

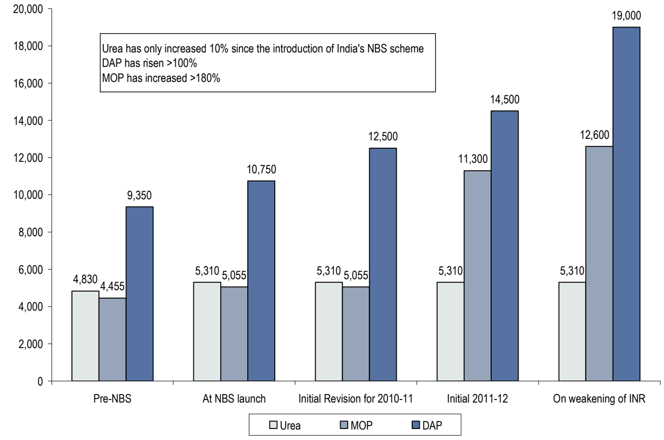
Overall farmer prices for DAP and MOP had risen by >100% and >180%, respectively (since the introduction of the NBS scheme). By comparison international DAP and MOP prices have risen ~15% and 45%, respectively, since the implementation of India's NBS scheme in April 2010.

Figure 14. International DAP & MOP Prices, Jan-10-Jan-12 ($/T)



Source: FMB, Green Markets & CIRA

Figure 15. Urea, DAP & MOP – Indian Farmer Prices Since Launch of the NBS Scheme (Rs/T)



Source: FAI & CIRA

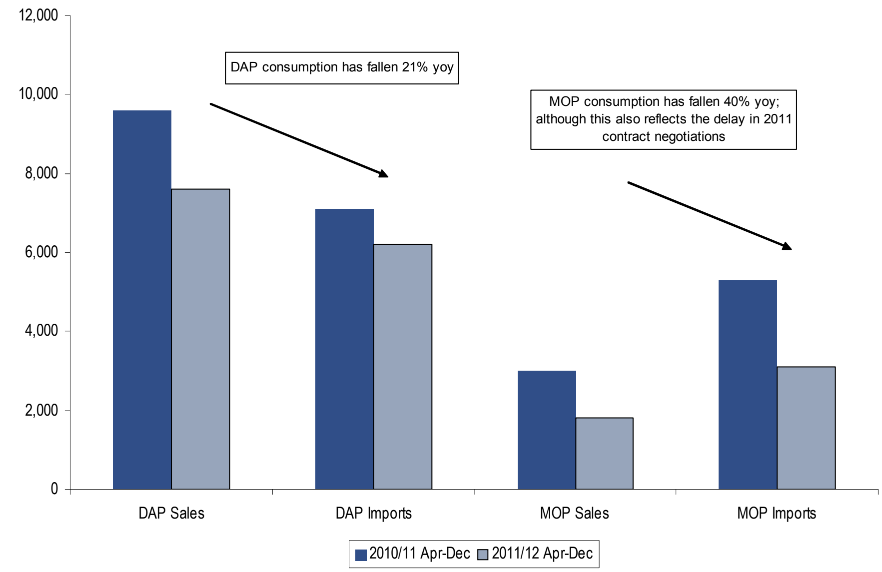
Demand destruction has now become apparent

With rising prices, farmer demand for DAP and MOP started to stall.

India's FAI estimates underlying DAP & MOP demand to have fallen by 20-25%.

For April to December 2011 DAP consumption in India has fallen 21%. MOP consumption has fallen 40%. However, this also reflects the delay to contract negotiations. India's FAI estimates underlying demand to have fallen by 20-25% overall for DAP and MOP.

Figure 16. India – DAP & MOP Sales & Imports, Apr-Dec 2010/11 & 2011/12 (kT)



Source: FAI, FMB & CIRA.

What now?

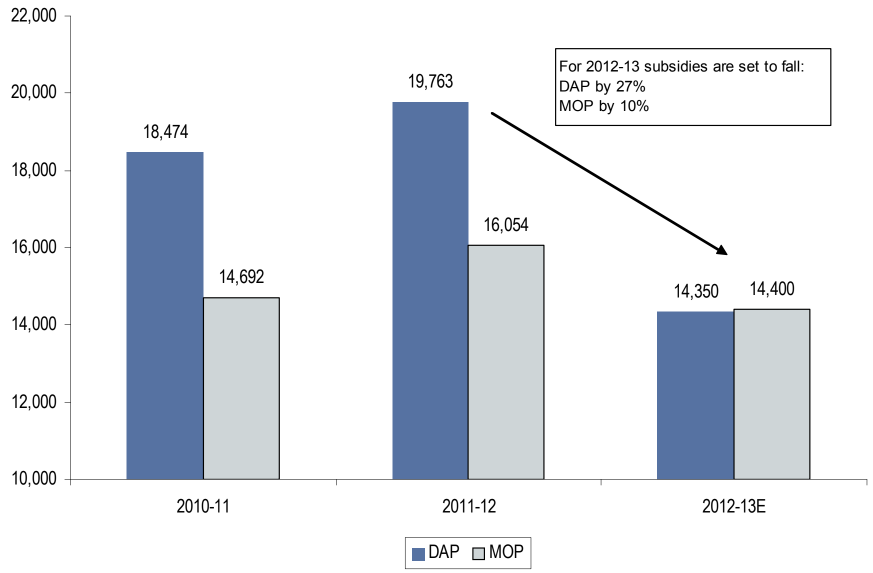
India is now in the process of setting its 2012-13 financial budget, which will be signed into law in March. This will incorporate its updated NBS budget.

DAP & MOP subsidies seem set to fall…..

While final figures are yet to be disclosed, India's DoF has indicated a cut in the subsidies for DAP and MOP (as highlighted in Figure 17).

India is cutting its DAP subsidy by 27% & its MOP subsidy by 10%.

Figure 17. Indian NBS Scheme – DAP & MOP Subsidy per Tonne (Rs)



Source: India's DoF, FMB & CIRA

….implying DAP & MOP import pricing pressure

Assuming farmer prices for DAP and MOP do not rise further and also the prevailing FX rate of Rs49:$, we would estimate a breakeven DAP IPP of $613/T cfr. This compares with the 2H11 price of $677/T cfr, i.e. a c.10% cut.

We estimate breakeven DAP at $613/T cfr (-10% on 2H11) & MOP at $490/T cfr (flat on 2H11); all excluding domestic freight costs.

For MOP we estimate a price of ~$490/T cfr. This is broadly in line with current contract prices.

However, we would note that in both instances we do not account for incremental domestic freight costs. Assuming an average Rs1,500/T we would estimate a DAP IPP of $584/T cfr (-14% on 2H11). For MOP we estimate $460/t cfr (-6% on 2H11).

Figure 18. Indian NBS Economics for DAP & MOP, 2012/13 (Units As Stated)

	DAP	MOP
DAP /MOP import parity price ($/T)	613	490
Assumed FX rate: Rs /$	49	49
DAP /MOP import price (Rs/T)	30,029	23,990
Customs duty at 5.15% (Rs/T)	1,546	1,235
Stevedoring charges (Rs/T)	700	700
Bagging costs (Rs/T)	200	200
Dealer's Margin (Rs/T)	275	275
Costs less internal freight (Rs/T)	32,750	26,400
Standard importer margin (Rs/T)	600	600
Total cost less internal freight (Rs/T)	33,350	27,000
Subsidy (Rs/T)	14,350	14,400
Price to the Farmer (Rs /T)*	19,000	12,600
Implied recovered cost (Rs/T)	33,350	27,000
Revenue less costs excl domestic freight (Rs/T)	-	-

* Max of quoted range of Rs 18,200-19,000/T for DAP and Rs 12,000-12,600/T for MOP.

Source: FAI and CIRA Estimates

2012-13 DAP & MOP imports now seem likely to fall

India's FAI indicates a 15% fall in DAP & MOP imports for 2012-13.

Given recent demand destruction as well as the potential cut to subsidies we believe DAP and MOP imports seem likely to fall.

The FAI has indicated ~6mT for DAP (from 7mT) and just over 5mT for MOP (from close to 6mT).

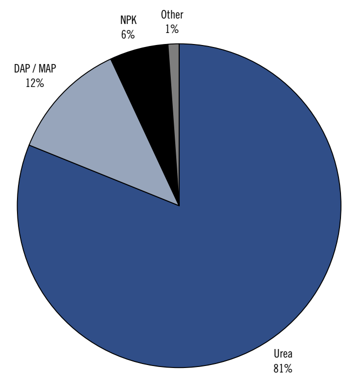
India's dilemma – subsidy cap versus adequate crop yields

India's immediate objective seems to be to keep a manageable cap on its fertiliser budget, in our view. However, this may not complement its aim to achieve broader fertiliser application.

India over-applies urea and will likely continue to do so.

India continues to over-apply urea (see Figure 19). Indeed if urea continues to remain at the lowest price to farmers then demand will likely continue to be skewed to this nutrient.

Figure 19. Fertiliser Application by Nutrient



Source: IFA

Its crop yields remain weak, even by developing market standards…..

However, this has led to soil deficiency which has negatively affected crop yields (see Figure 20). India's rice yields are even below those of its developing market neighbours (see Figure 21).

…while it has over a billion people to feed.

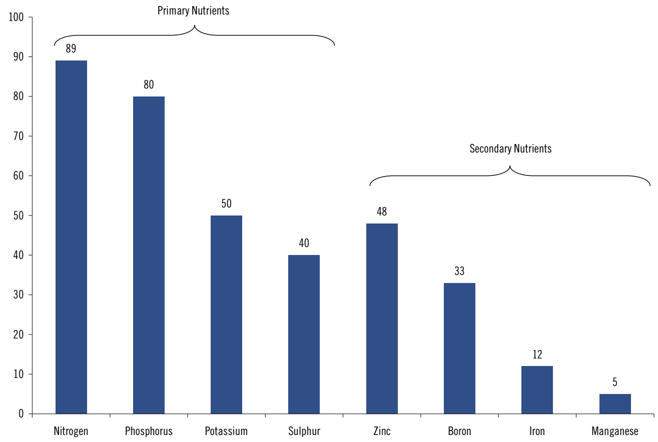
This is critical as India has over a billion people to feed. India will also hold elections across seven states this year. Its Presidential election is also due to be held in July of this year.

We believe this stresses the importance of balanced fertiliser application as well as affordable prices to the farmer.

India's NBS scheme will likely need meaningful revisions, in our view.

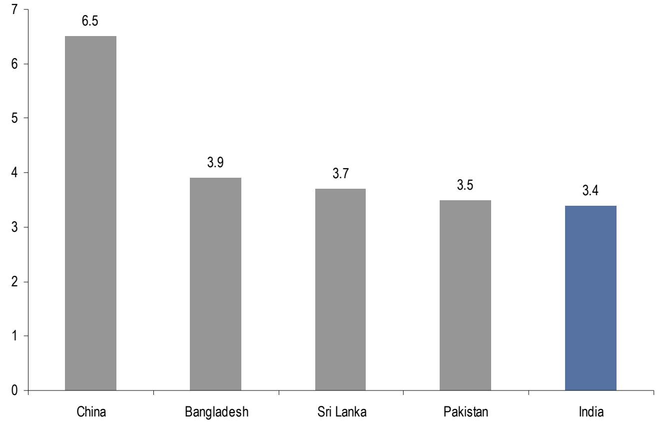
However, the current subsidy scheme does not allow for both. We believe meaningful adjustments will likely need to be made over the near- to medium-term.

Figure 20. India – Soil Deficiency by Nutrient (Percentage)



Source: FAO

Figure 21. Rice Yields per Hectare – India Vs Developing Neighbours (T)



Source: Food & Agriculture Organisation of the UN

Appendix

Global Fertilisers – Coverage & Valuation

Figure 22. Global Fertilisers – Coverage

Company	Country	Reuters	Bloomberg	Rating	Currency	Price	52 Weeks High	52 Weeks Low	Target Price	ETR %	Market cap (US$)	Avg Daily Volume	Free Float	FYE	Primary Analyst
Agrium Inc	Canada	AGU.N	AGU US	2	USD	81.4	98.1	64.1	87.0	38%	12,849	458	64%	Dec-12	P.J. Juvekar
Arab Potash	Jordan	APOT.AM	APOT JR	2	JOD	40.0	46.6	37.5	41.0	4%	4,696	2	7%	Dec-12	Heidy Rehman
China BlueChemical	China	3983.HK	3983 HK	1	HKD	6.2	6.9	5.1	7.8	29%	3,680	6,536	25%	Dec-12	Oscar Yee
CF Industries	United States	CF.N	CF US	1	USD	180.2	189.8	121.0	194.0	8%	11,780	477	100%	Dec-12	P.J. Juvekar
Incitec Pivot	Australia	IPL.AX	IPL AU	1	AUD	3.4	4.6	3.0	4.3	30%	5,905	10,331	100%	Sep-12	Trevor Huynh
Industries Qatar	Qatar	IQCD.QA	IQCD QD	1	QAR	133.7	148.5	117.0	140.0	9%	20,195	280	30%	Dec-12	Heidy Rehman
Israel Chem	Israel	ICL.TA	ICL IT	1	ILS	40.5	64.0	34.2	50.0	31%	13,848	2,303	34%	Dec-12	Andrew Benson
JPMC	Jordan	JOPH.AM	JOPH JR	3	JOD	12.0	15.9	11.5	8.0	-32%	1,270	19	10%	Dec-12	Heidy Rehman
K+S	Germany	SDFGn.DE	SDF GR	1	EUR	39.7	58.6	33.4	60.0	54%	10,001	1,439	88%	Dec-12	Andrew Benson
Maaden	Saudi Arabia	1211.SE	MAADEN AB	Not Rated	SAR	28.4	29.3	19.9	Not Rated	na	7,005	2,232	33%	Dec-12	na
Mosaic	United States	MOS.N	MOS US	2	USD	54.4	89.1	47.1	57.0	5%	23,151	1,712	70%	May-12	P.J. Juvekar
Orascom Cnstruct	Egypt	OCIC.CA	OCIC EY	1	EGP	259.9	285.1	197.0	280.0	14%	8,996	123	47%	Dec-12	Heidy Rehman
Potash Saskatche	Canada	POT.N	POT US	1	USD	44.7	63.3	38.6	54.0	22%	38,384	1,635	100%	Dec-12	P.J. Juvekar
PhosAgro	Russian Federatic	PHORq.L	PHOR LI	1	USD	10.3	14.8	8.1	21.0	132%	3,303	201		Dec-12	Daniel Yakub
SAFCO	Saudi Arabia	2020.SE	SAFCO AB	2	SAR	180.0	192.8	149.0	195.0	16%	11,999	170	40%	Dec-12	Heidy Rehman
Sinofert	Hong Kong	0297.HK	297 HK	1	HKD	2.4	4.6	1.8	2.8	20%	2,129	14,823	25%	Dec-12	Oscar Yee
Uralkali	Russian Federatic	URKAq.L	URKA LI	2	USD	37.9	50.5	27.8	41.0	12%	23,425	1,535	42%	Dec-12	Daniel Yakub
Yara	Norway	YAR.OL	YAR NO	1	NOK	255.6	335.5	203.3	360.0	28%	12,780	2,294	64%	Dec-12	Andrew Benson
Z A Pulawy	Poland	PULW.WA	ZAP PW	Not Rated	PLN	90.9	128.1	77.5	Not Rated	na	542	12	34%	Jun-12	na

Source: Powered by dataCentral. Priced as at 13 February 2002.

Figure 23. Global Fertilisers – Valuation

			P/E			EV/EBITDA x			EV/EBIT x			FCF yield %			Dividend yield %			P/Book		
Company	FYE	LRY	2010	2011E	2012E	2010	2011E	2012E	2010	2011E	2012E	2010	2011E	2012E	2010	2011E	2012E	2010	2011E	2012E
Agrium Inc	Dec-12	2011	17.6	8.3	8.8	12.8	6.4	5.2	14.5	7.7	6.1	-2.6%	1.3%	3.6%	0.1%	0.3%	0.6%	2.4	2.0	1.6
Arab Potash	Dec-12	2010	20.4	15.1	10.5	14.4	10.2	7.1	17.8	12.5	8.1	5.6%	4.7%	8.6%	1.8%	1.8%	1.8%	4.1	3.4	2.7
China BlueChemical	Dec-12	2010	19.7	11.1	10.3	8.9	5.5	5.2	12.8	7.2	6.8	2.3%	1.6%	-3.1%	1.8%	3.2%	3.6%	2.2	2.0	1.7
CF Industries	Dec-12	2010	22.8	8.0	7.8	7.2	3.7	3.5	9.6	4.3	4.1	7.9%	19.7%	14.1%	0.2%	0.6%	0.9%	2.9	2.8	2.1
Incitec Pivot	Sep-12	2011	14.4	10.4	10.4	9.2	7.1	6.6	11.3	8.4	8.0	3.8%	1.4%	9.8%	2.3%	3.4%	3.8%	1.5	1.5	1.4
Industries Qatar	Dec-12	2010	13.2	8.9	8.6	12.0	8.1	7.1	13.5	8.8	8.1	1.7%	5.5%	11.1%	4.1%	4.1%	4.9%	3.4	2.7	2.3
Israel Chem	Dec-12	2010	12.8	8.9	8.9	9.8	7.1	7.2	11.3	7.9	7.9	8.7%	5.8%	12.1%	8.7%	7.7%	7.3%	5.3	4.5	3.8
JPMC	Dec-12	2010	12.0	11.4	12.7	9.1	7.7	8.9	11.9	9.5	11.1	-1.3%	-1.2%	1.2%	1.2%	1.2%	1.2%	1.7	1.5	1.4
K+S	Dec-12	2010	14.6	10.7	9.6	8.4	6.7	6.0	10.9	8.2	7.3	8.6%	7.5%	5.7%	2.5%	3.2%	4.0%	2.9	2.5	2.1
Maaden	Dec-12	nm	na	63.1	15.5	na	na	na	na	na	na	na	na	na	na	na	0.0%	na	na	na
Mosaic	May-12	2011	28.1	12.4	10.9	12.7	6.7	5.9	17.1	7.8	6.9	2.1%	4.8%	2.7%	0.4%	0.4%	0.4%	2.7	2.0	1.9
Orascom Cnstruct	Dec-12	2010	15.0	12.1	9.8	9.9	8.0	6.8	13.0	10.0	8.3	-0.7%	4.9%	9.9%	7.0%	5.8%	5.8%	2.9	2.8	2.5
PhosAgro	Dec-12	2010	9.5	4.6	5.9	6.5	3.6	4.7	9.1	4.4	5.8	2.9%	16.7%	18.0%	2.5%	29.0%	3.4%	1.7	2.9	1.8
Potash Saskatche	Dec-12	2011	22.3	12.7	12.4	14.1	9.1	8.7	16.8	10.2	9.8	1.6%	3.2%	4.1%	0.3%	0.6%	1.3%	5.7	4.9	3.6
SAFCO	Dec-12	2010	15.4	12.2	12.3	14.4	10.8	10.7	16.0	11.8	11.7	6.2%	8.4%	8.4%	6.7%	7.2%	7.2%	6.3	5.7	5.5
Sinofert	Dec-12	2010	25.0	12.1	9.6	23.0	6.0	4.6	49.7	8.2	6.1	8.1%	20.3%	3.4%	0.6%	1.3%	1.8%	1.1	1.0	0.9
Uralkali	Dec-12	2010	20.7	13.9	9.9	15.8	10.4	7.4	18.1	11.4	7.9	2.5%	7.4%	7.7%	0.0%	3.6%	5.0%	6.1	2.6	2.0
Yara	Dec-12	2011	12.3	7.1	7.4	8.2	5.2	4.8	10.7	6.3	5.8	5.4%	5.8%	15.6%	2.2%	2.7%	3.0%	2.1	1.6	1.4
Weighted average			**19.5**	**12.7**	**10.2**	**12.2**	**7.7**	**6.9**	**15.0**	**8.8**	**7.9**	**3.2%**	**6.0%**	**7.7%**	**2.2%**	**3.2%**	**3.1%**	**4.0**	**3.2**	**2.6**

Source: Powered by dataCentral. Priced as at 13 February 2002.

Notes

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Appendix A-1

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