



## Making Fertilizers cost effective

### What is the issue?

- Due to gas scarcity and the difficulty of gas pricing, fertilizer production in India does not inspire confidence for fresh investment.
- No fresh investment has happened for the past two decades.

### What is the problem in production?

- India is the world's largest importer of fertilizers.
- Since the main ingredient in urea is natural gas, which India lacks, there is large import dependence.
- It imports nearly 10 million tonnes of urea annually i.e one-third of its domestic consumption.
- Also as gas represents 80% of the cost of urea production, even a one-dollar per unit increase in price increases the cost of urea by 10-15% of its international price.
- So, cost-efficient gas is vital for the viability of producing urea in India.

### What is the condition of domestic reserves?

- Around 10 years ago, huge gas reserves were discovered in the Krishna-Godavari basin, off the east coast of India.
- The total reserves were supposed to be in excess of 80 trillion cubic feet.
- This could transform not just fertilizer production but could also meet the cooking, lighting and automobile gas.
- However due to various reasons and disagreements on the price of gas no new fertilizer capacity has come up to take advantage of India's gas find.

### What is the problem in importing gas?

- **Volatility** - At any given point, the price of gas can vary from half a dollar to \$15 for various end-consumers in the world.
- The benchmark is the spot or futures price at Henry Hub, a natural gas pipeline hub in Louisiana, US. But even that is quite volatile.
- Long-term fixed price contracts are not very common.
- **Infrastructure** - The transport of gas itself is very costly either through pipeline or in liquefied form.

- **Subsidy** - Farmers in India pay a highly subsidized price for urea, about Rs 5,000 a tonne. This implies a subsidy of 60-70% on the international price of urea. This large gap is reimbursed to the supplier by the government.
- Food and fertilizer subsidy makes up about 12% of the Union budget, (fertilizer alone was Rs 1 trillion). Due to this huge burden, domestic producers often face great delays in getting reimbursed by the government. That delay can be deadly to domestic producers, as it represents a substantial part of their revenue.
- On the other hand, foreign suppliers of urea have to be paid instantly, since otherwise they would stop supplying to India.

### **What has the government done?**

- The government has tried to reform by moving to a nutrient-based subsidy regime to reduce dependency on urea.
- There is now talk of paying cash subsidy directly to farmers using Jan Dhan Yojana bank accounts but there are problems in identifying beneficiaries. In spite of them, there is one move which is worth recounting.
- It is the joint venture between India and Oman to produce 1.6 million tonnes of urea in Oman. It commenced 11 years ago.
- Since it is expensive to import gas it is planned to convert that gas into urea in situ, and import the urea instead. This production in Oman is completely dedicated to India.
- India also signed a long term contract to utilize gas at less than a dollar per unit. It now accounts for almost one-fifth of India's import of urea.

### **What should be done in future?**

- This is now being replicated at the Chabahar port in Iran to produce another million tonnes of urea using Iranian gas near the port.
- This approach of converting India's vulnerable situation of import dependence for gas, into a joint venture on foreign shores that have abundant gas is a win-win for all.
- Though it goes against the spirit of Make In India, it makes ultimate strategic sense. It can be applied to address India's food security by encouraging agriculture-production joint ventures in land-abundant countries.

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