

# FAQs

## Reforming the fertilizer sector

### Q What is the context ?

A Since 1991, when economic reforms began in India, several attempts have been made to reform the fertilizer sector to keep a check on the rising fertilizer subsidy bill, promote the efficient use of fertilizers, achieve balanced use of N, P, and K (nitrogen, phosphorus, and potassium), and reduce water and air pollution caused by fertilizers like urea.

Several attempts have been made to reform the fertilizer sector to keep a check on the rising fertilizer subsidy bill.

### Q What is the background behind subsidy of fertilizers ?

A

- After years of unchanged prices, the budget of 1991 raised the issue prices of fertilizers by 40% on average. This rise was rolled down to 30% in a few months, with exemption to small and marginal farmers from the price increase.
- Due to opposition, the increase in Urea price was further rolled back to 17% over the pre-reform price.
- It resulted in a big shift in the composition of fertilizers used in the country in favour of urea and thus Nitrogen (N).
- The government started Nutrient Based Subsidy in 2010 to address the growing imbalance in fertilizer use, which was skewed towards urea (N).
- However, only non-nitrogenous fertilizers P and K (phosphorus and potassium) were included in NBS; urea was left out.

### Q What should be the area of reforms ?

A

**Reforms are needed to promote in three key areas:**

- 1) The efficient use of fertilizers.
- 2) To achieve balanced use of N, P, and K (nitrogen, phosphorus, and potassium).
- 3) To reduce water and air pollution caused by fertilizers like urea.

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## Q What are Challenges in the fertilizer sector ?

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### A] Distortion in use due to price difference

- The Union Budget of July 1991 raised the issue prices of fertilizers by 40% on average.
- Due to opposition to increasing fertilizer prices, the increase in the price of urea was rolled back to 17% a year later over the pre-reform price.
- The shift in the composition of fertilizer used: This change disturbed the relative prices of various fertilizers and resulted in a big shift in the composition of fertilizers used in the country in favor of urea and thus N.
- Farmers tended to move towards balanced use, but policy and price changes reversed the favorable trend a couple of times in the last three decades.
- In 2019-20, fertilizer use per hectare of cultivated area varied from 70 kg of NPK in Rajasthan to 250 kg in Telangana
- Further, the composition of total plant nutrients in terms of the N, P, K ratio deviated considerably from the recommended or optimal NPK mix.
- It was 33.7:8.0:1 in Punjab and 1.3:0.7:1 in Kerala.

### 2] Increasing fertilizer subsidy

- Fertilizer subsidy has doubled in a short period of three years. For 2021-22, the Union Budget has estimated fertilizer subsidy at ₹79,530 crores (from ₹66,468 crores in 2017-18).
- The subsidy is likely to reach a much higher level due to the recent upsurge in the prices of energy, the international prices of urea and other fertilizers, and India's dependence on imports.
- In order to minimize the impact of rising in prices on farmers, the bulk of the price rise is absorbed by the government through enhanced fertilizer subsidy.
- This is likely to create serious fiscal challenges.
- At current prices, farmers pay about ₹268 per bag of urea and the Government of India pays an average subsidy of about ₹930 per bag.
- Thus, taxpayers bear 78% of the cost of urea and farmers pay only 22%. This is expected to increase and is not sustainable.

### 3] Import dependence

- Total demand for urea: The total demand for urea in the country is about 34-35 million tonnes (mln t) whereas the domestic production is about 25 mln t.
- The requirement of Diammonium Phosphate (DAP) is about 12 mln t and domestic production is just 5 mln t.
- This leaves the gap of nearly 9-10 mln t for urea and 7 mln t for DAP, which is met through imports.

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- The use of Muriate of Potash is about 3 mln t.
- This is entirely imported.
- The international prices of fertilizers are volatile and almost directly proportional to energy prices.

## Q What is the need to shift our focus to Bio-fertilizers ?

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- Bio-fertilizers are cheap, renewable, and eco-friendly, with great potential to supplement plant nutrients if applied properly. However, they are not a substitute for chemical fertilizers.
- They improve the health of the soil. Since it provides nutrients to the soil in a small and steady manner, its immediate effects are not very visible.
- Sales of biofertilizers in the country have not picked up because of a lack of knowledge and its slow impact on the productivity of the soil.
- The use of biofertilizers is necessary to maintain soil health as more and more use of chemical fertilizers kills all the microorganisms available in the soil, which are so essential for maintaining soil health.
- Supplementary use of biofertilizers with chemical fertilizers can help maintain soil fertility over a long period.
- The overall strategy for increasing crop yields and sustaining them at a high level must include an integrated approach to the management of soil nutrients, along with other complementary measures.

## Q What can be the Way forward ?

A

- **Self-reliance:** we need to be self-reliant and not depend on the import of fertilizers.
- In this way, we can escape the vagaries of high volatility in international prices.
- In this direction, five urea plants at Gorakhpur, Sindri, Barauni, Talcher, and Ramagundam are being revived in the public sector.
- **Extend NBS model to urea:** The government introduced the Nutrient Based Subsidy (NBS) in 2010 to address the growing imbalance in fertilizer use.
- However, only non-nitrogenous fertilizers (P and K) moved to NBS; urea was left out.
- We need to extend the NBS model to urea and allow for price rationalization of urea compared to non-nitrogenous fertilizers and prices of crops.
- **Develop alternative sources of nutrition for plants:** Discussions with farmers and consumers reveal a strong desire to shift towards the use of non-chemical

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fertilizers as well as a demand for bringing parity in prices and subsidy given to chemical fertilizers with organic and biofertilizers.

- This also provides the scope to use large biomass of crop that goes waste and enhance the value of livestock by-products.
- We need to scale up and improve innovations to develop alternative fertilizers.
- **Improve fertilizer efficiency:** India should pay attention to improving fertilizer efficiency through need-based use rather than broadcasting fertilizer in the field.

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