



General Studies-3; Topic: Issues related to Agriculture

Reforming the fertilizer sector

Introduction

- Since 1991, when economic reforms began in India, several attempts have been made to reform the fertilizer sector.
- This is 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.

Increasing Subsidy for Fertilizers

- The Economic Survey of 1991-92 noted that fertilizer prices remained almost unchanged from July 1981 to July 1991. The Union Budget of July 1991 raised the issue prices of fertilizers by 40% on average.
- The Economic Survey further noted that, fertilizer subsidy remained substantial and needed to be reduced further.
- Due to opposition to increase fertilizer prices, the increase in the price of urea was rolled back to 17% a year later over the pre-reform price.
- 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 favour of urea.
- The ratio of use of N:P:K increased from 5.9:2.4:1 in 1991-92 to 9.7:2.9:1 in 1993-94.

Impact

- Freezing the MRP of urea in different time periods and its rising sale lead to an **increase in indiscriminate and imbalanced use of fertilizers.**

Present Status

- Fertilizer subsidy has doubled in a short period of three years.
- For 2021-22, the Union Budget has estimated fertilizer subsidy at ₹79,530 crore (from ₹66,468 crore in 2017-18) but it is likely to reach a much higher level due to the recent upsurge in the prices of energy.
- **The international prices of fertilizers are volatile and almost directly proportional to energy prices.**
- Cartels of major global producers have a strong influence on prices.
- There has been a surge in international prices with urea prices rising to a record level.
- In order to minimise the impact of rise in prices on farmers, the government provides fertilizer subsidy. This is likely to create serious **fiscal challenges**.
- Taxpayers bear 78% of the cost of urea and farmers pay only 22%.

Indiscriminate use of Fertilizers

- In 2019-20, fertilizer use per hectare of cultivated area varied from 70 kg of NPK in Rajasthan to 250 kg in Telangana.
- This gap was much wider at the district level.
- Further, composition of total plant nutrients in terms of the N, P, K ratio deviated considerably from the recommended or optimal NPK mix.
- This also has implications for **inter-State disparities in fertilizer subsidy** due to high variations in subsidy content.

Nutrient Based Subsidy (NBS)

- The government introduced the Nutrient Based Subsidy (NBS) in 2010 to address the growing imbalance in fertilizer use in many States, which is skewed towards urea (N).
- However, only non-nitrogenous fertilizers (P and K) moved to NBS; urea was left out.

Use of organic fertilizers

- Concerned with the adverse environmental impact of chemical fertilizers, some sections of society suggest the use of organic fertilizers and biofertilizers.
- There is a **growing demand to provide subsidies and other incentives for organic fertilizers and biofertilizers** to match those provided for chemical fertilizers.

Way Forward

- We need to be **self-reliant and not depend on import of fertilizers**, so that we can escape the vagaries of high volatility in international prices.
- We need to **extend the Nutrient Based Subsidy (NBS) model to urea** and allow for price rationalisation of urea compared to non-nitrogenous fertilizers and prices of crops.
- We need to **develop alternative sources of nutrition for plants**.
- Discussions with farmers and consumers reveal a strong desire to shift towards the use of non-chemical 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 a large biomass of crop that goes waste and enhance the value of livestock by-products.
- Though compost contains low amounts of nitrogen, technologies are now available to enrich this.
- India should pay attention to **improving fertilizer efficiency** through need-based use rather than broadcasting fertilizer in the field.
- The recently developed **Nano urea** by IFFCO shows promising results in reducing the usage of urea. Such products need to be promoted expeditiously after testing.
- These changes will go a long way in enhancing the productivity of agriculture, mitigating climate change, providing an alternative to chemical fertilizers and balancing the fiscal impact of fertilizer subsidy.