

GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS AND FERTILIZERS
DEPARTMENT OF FERTILIZERS

RAJYA SABHA

UNSTARRED QUESTION NO. 350 TO BE ANSWERED ON: 03.02.2026

Nano-fertilizers and sustainable agricultural practices

350 Smt. Kiran Choudhry:

Smt. Maya Naroliya:

Shri Brij Lal:

Shri Deepak Prakash:

Shri Amar Pal Maurya:

Shri Mayankkumar Nayak:

Shri Subhash Barala:

Shri Narayana Koragappa:

Smt. Darshana Singh:

Shri Ujjwal Deorao Nikam:

Will the **Minister of CHEMICALS AND FERTILIZERS** be pleased to state:

- (a) the manner in which nano urea and nano diammonium phosphate (DAP) has been promoted through field demonstrations and awareness campaigns;
- (b) the manner in which these demonstrations and awareness campaigns have resulted in a measurable reduction in fertilizer consumption;
- (c) whether States have been incentivized for reducing the use of chemical fertilizers under the PM-PRANAM (Prime Minister's Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth) scheme; and
- (d) if so, the details of the reductions, State-wise and the incentive amounts released?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF CHEMICALS AND FERTILIZERS
(SMT. ANUPRIYA PATEL)

(a) & (b) In order to promote the use of Nano Fertilizers among farmers across the country, the following measures have been undertaken:

- i. Use of Nano Fertilizers is promoted through different activities such as awareness camps, webinars, field demonstrations, Kisan Sammelans and films in regional languages etc.
- ii. Nano Fertilizers are made available at Pradhan Mantri Kisan Samridhi Kendras (PMKSKs) by concerned companies.
- iii. Nano Fertilizers has been included under monthly supply plan issued by Department of Fertilizers regularly.
- iv. For ease in application and utilization of Nano fertilizers like Nano Urea through foliar application, initiatives such as innovative spraying options like 'Kisan

Drones' and distribution of battery operated Sprayers at retail points are undertaken. For this purpose, pilot training and custom hiring spraying services through Village Level Entrepreneurs are actively promoted.

- v. DoF in collaboration with fertilizer companies has initiated a Maha Abhiyan for adoption of Nano DAP in all 15 agro-climatic zones of the country through consultations and field level demonstrations. Further, DoF in collaboration with fertilizer companies has also launched campaign for field level demonstrations and awareness programs of Nano Urea plus in 100 districts of the country.

Since inception, a cumulative total of **11.85 crore bottles** (500 ml equivalent) of Nano Urea and **3.53 crore bottles** (500 ml equivalent) of Nano DAP have been sold nationwide as of 31.12.2025. The National Productivity Council (NPC) is conducting a two-year study (2024–2026) titled “Evaluating the Efficacy, Utility and Impact of Nano Urea in comparison to Conventional Urea.” Key findings from the draft study report indicate that Nano Urea must be used only as a foliar application, while the basal dose must continue to be supplied through Conventional Urea, which remains essential even when Nano Urea is used. Combined application, Conventional Urea as basal and Nano Urea as foliar, has shown 1.65% to 14.82% increase in crop yield, depending on the crop, based on farmer feedback.

(c) & (d) The Cabinet Committee on Economic Affairs (CCEA), on June 28, 2023, approved the “PM Programme for Restoration, Awareness Generation, Nourishment, and Amelioration of Mother-Earth (PM-PRANAM). The initiative aims to support the mass movement initiated by States and Union Territories (UTs) to preserve the health of Mother Earth through the promotion of sustainable and balanced fertilizer use, adoption of alternative fertilizers, promotion of organic farming, and implementation of resource conservation technologies.

All States/UTs are covered under the PM-PRANAM scheme. Under the PM-PRANAM scheme, there is a provision to provide incentives to States/UTs for reduction of consumption of chemical fertilizers (Urea, DAP, NPK, MOP) in a given financial year, compared to the average consumption over the previous three years, equivalent to 50% of the fertilizer subsidy saved. Of the total grant, 95% will be allocated to the State, while the remaining 5% will be utilized by the Government of India towards disaster-adjusted incentives. For grant calculations, any increase in a State’s cropping area is first accounted for by proportionately adjusting fertilizer consumption. Thereafter, the actual reduction in chemical fertilizer usage during the year is computed to arrive at the final incentive amount. Additionally, any increase in fertilizer consumption in adjoining districts of neighboring States is deducted from the savings. Out of the 95% grant provided to the States, 65% is for capital expenditure (capex) projects, preferably as contributions to Centrally Sponsored Schemes, and 30% is untied for other activities, including Information, Education, and Communication (IEC) initiatives. Till date, no incentives have been disbursed to the States/UTs.
