GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS & FERTILIZERS
DEPARTMENT OF FERTILIZERS

LOK SABHA

UNSTARRED QUESTION NO. **5572** TO BE ANSWERED ON **27.03.2026**

Reduction in the use of Chemical Fertilizers

5572: Shri Sukhjinder Singh Randhawa:

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

a) the steps being taken by the Government to reduce the use of chemical fertilizers; and
b) the steps being taken to prevent excessive use of nitrogenous fertilizers along with the details of the damage caused by the use of the said fertilizers?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF CHEMICALS & FERTILIZERS

(SMT. ANUPRIYA PATEL)

(a) & (b): Government promotes judicious use of fertilizer through Soil Health & Fertility scheme. The scheme is being implemented since 2014-15 to provide Soil Health Cards (SHCs) for all farm holdings, to promote balanced and integrated nutrient management for improving productivity and soil fertility. Soil samples are processed as per standard procedures and analysed for parameters such as pH, Electrical Conductivity, Organic Carbon, available Nitrogen, Phosphorus, Potassium, Sulphur, and micronutrients (Zinc, Copper, Iron, Manganese & Boron).

The diagnostic soil health assessment of farmer fields is taken up periodically so as to issue SHCs at least once in 3 years. Since 2014-15, 25.93 crore Soil Health Cards have been generated/ distributed as on date across the country. Total 8313 Soil Testing Labs (1267 Static Soil Testing Labs, 168 Mobile Soil Testing Labs, 6197 Mini Soil Testing Labs and 681 Village Level Soil Testing Labs) have been established across the country.

In addition to state soil labs above, 1020 school mini soil labs are also established in the country under school soil health programme. Under the scheme, Rs. 2085.52 Crore fund has been released so far since inception. 93781 farmer's trainings, 6.80 lakh demonstrations, 7425 farmer's melas/ campaigns on soil health card

recommendations have been organized across the country. 1351166 ha area also covered under Promotion & Distribution of Micronutrients in the scheme.

National Productivity Council (NPC), New Delhi carried out a study 'Soil Testing Infrastructure for Faster Delivery of SHC in India' in 2017 in 76 districts of 19 States including Madhya Pradesh covering 170 soil testing labs and 1700 farmers. As a result of application of fertilizer and micronutrients as per SHC recommendations, there has been a decrease of use of chemical fertilizer application in the range of 8-10% was found. Overall 5-6% increase in the yield of crops was reported, due to application of fertilizer and micronutrients as per SHC. An impact study of Soil Health & Fertility Scheme (November 2017) was conducted by National Institute of Agricultural Extension Management (MANAGE), Hyderabad. As per report, about 62.8% of the farmers use fertilizers according to the recommendations on the SHC. The cost per acre reduced by 4 to 10 % due to low fertilizer use. Crop yields increased for majority of the crops, although moderately. Overall, paddy farmers reduced use of urea by 9%, Di-Ammonium Phosphate (DAP)/Single Super Phosphate by 7%, but increased use of Potassium by 20%. There was substantial decline in fertilizer use especially urea and DAP in paddy and cotton resulted in decreased cost of cultivation per unit area.

Further, 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. 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.

Also, the Government has implemented Nutrient Based Subsidy (NBS) Scheme w.e.f. 01.04.2010 for Phosphatic and Potassic (P&K) Fertilizers. Under the policy, a fixed amount of subsidy, decided on annual/bi-annual basis, is provided to manufacturer / importer on subsidized P&K fertilizers depending on their nutrient content i.e. Nitrogen (N), Phosphorus (P), Potassium (K) and Sulphur (S). The Nutrient-Based Subsidy

(NBS) Scheme, encourages balanced fertilization of soil by promoting basket of NPK grade fertilizers along with additional subsidy on fortification with micronutrients like Zinc & Boron.

In addition, the Government has approved Market Development Assistance (MDA) Scheme (FY 2023-24 to 2025-26) under which assistance @ Rs. 1500/MT is being provided to CBG plants/ Fertilizer Marketing Companies for promotion of Organic carbon enhancers, viz., Fermented Organic Manure (FOM)/Liquid Fermented Organic Manure (LFOM) and organic fertilizer, viz., Phosphate Rich Organic Manure (PROM) produced at plants under GOBARdhan initiative, with total outlay of Rs.1451.84 Crore (FY 2023-24 to 2025-26), which includes, a corpus of Rs. 360 Crore for research gap funding, etc. These initiatives of the Government are expected to address the imbalanced use of chemical fertilizers thereby reducing chemical fertilizer use.

Long-term studies conducted by ICAR at 17 locations across diverse agro-ecological regions of the country demonstrate the impact of balanced nutrient application on soil health and crop productivity. The findings indicate that recommended NPK application (100% NPK) improves crop yields by about 20-30 per cent over nitrogen-only use, while integrated nutrient management (100% NPK+ farmyard manure) further enhances productivity by 30-50 percent over control plots. Soil organic carbon is highest under integrated nutrient management, improving by about 0.1-0.3 percentage points over long-term nitrogen-only treatments, indicating better soil health. Microbial biomass carbon is also significantly higher, by 20-40 percent, under integrated nutrient management compared to chemical fertilizers alone. In contrast, continuous nitrogen-only application leads to declining yields and deterioration of soil properties over time.

Further, under AIRP-STCR, soil test-based balanced fertilizer prescription equations have been developed for major crops to enable site-specific nutrient management based on soil fertility and farmers' resources. Coordinated programmes also promote balanced fertilization and integrated nutrient management through training, demonstrations, and awareness activities. Overall, balanced and integrated nutrient application is essential for sustaining soil fertility, improving crop productivity, and ensuring environmental sustainability.

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