

GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS & FERTILIZERS
DEPARTMENT OF FERTILIZERS

RAJYA SABHA

UNSTARRED QUESTION NO. 1942 TO BE ANSWERED ON 18.03.2025

Fossil fuel dependency in fertiliser production in Telangana

1942: SHRI RAVI CHANDRA VADDIRAJU:

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

- (a) whether fertiliser production is one of the most fossil fuel-dependent activities in the country's food supply chain including Telangana;
- (b) the steps being taken to reduce fossil fuel usage in fertiliser production in the country, particularly in Telangana;
- (c) whether Government is promoting the use of bio-fertilisers and organic alternatives to reduce dependency on petroleum-based fertilisers in the country including Telangana; and
- (d) the details of any research and development initiatives being undertaken to make fertiliser production more sustainable?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF CHEMICALS & FERTILIZERS

(SMT. ANUPRIYA PATEL)

(a): Yes, fertiliser production, particularly urea production, is one of the most fossil fuel-dependent activities in the country's food supply chain, including Telangana, as urea manufacturing units use natural gas as feedstock.

(b): The Government had announced New Investment Policy (NIP) – 2012 on 2nd January, 2013 and its amendment on 7th October, 2014 to facilitate fresh investment in the urea sector and to make India self-sufficient in the urea sector. Total 6 new urea units have been set up under NIP-2012. These new urea plants have been established with latest technology designed for much lower energy consumption, around 5.0 Gcal/MT. Also, under NUP-2015, Target Energy Norms were given to the urea units. The urea units were expected to achieve TEN for which the units have resorted to the latest technological up gradation in the plants. Resultantly, 19 urea units have achieved TEN till date. Implementation of NUP-15 norms has resulted in improving energy consumption of Urea plants from 6.04 Gcal/MT during 2014-15 to around 5.59 Gcal/MT during 2023-24.

(c): To promote use of bio-fertilizers in the country, Government is promoting organic farming through the schemes of Paramparagat Krishi Vikas Yojana (PKVY) in all the States/UTs and Mission Organic Value Chain Development for North Eastern

Region (MOVCDNER) scheme is being implemented. Both the schemes stress on end-to-end support to farmers engaged in organic farming i.e. from production to post-harvest management training and capacity building. The main focus of the PKVY and MOVCDNER schemes is to promote natural resource based integrated and climate resilient sustainable farming systems that ensure maintenance and increase of soil fertility, natural resource conservation, on-farm nutrient recycling and minimize dependence of farmers on external inputs. Under PKVY, States/UTs are provided financial assistance of Rs. 31,500/ha in total in 3 years in the organic clusters out of which, Rs. 15,000/ha is provided directly to farmers through DBT for on-farm and off-farm organic inputs, Rs. 4,500/ha for marketing, packaging, branding, value addition etc., Rs. 3,000/ha for certification and residue analysis and Rs. 9,000/ha for training and capacity building. Under MOVCDNER, assistance of Rs. 46,500/ha in total in 3 years is provided for creation of Farmers Producer Organization, support to farmers for organic inputs etc. Out of this, assistance @ Rs. 32,500/ ha is provided to farmers for off -farm /on –farm organic inputs including Rs. 15,000 as Direct Benefit Transfer to the farmers. One farmer can avail assistance for a maximum 2 ha area under both the schemes.

Pursuant to the Budget Announcement, 2023 and on the recommendations of the Expenditure Finance Committee (EFC), the Government has approved the Market Development Assistance (MDA) @ Rs. 1500/MT to promote organic fertilizers i.e. Fermented Organic Manure (FOM)/ Liquid Fermented Organic Manure (LFOM)/ Phosphate Rich Organic Manure (PROM), produced by Compressed Bio Gas (CBG) Bio-Gas plants under GOBARdhan scheme 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 overuse of chemical fertilizers.

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).” This 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. The 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, under the Scheme is equivalent to 50% of the fertilizer subsidy saved by the State. The incentives can be utilized for promotional activities (IEC) & R&D relating to agricultural infrastructure and increase in the yield. The remaining 50% of the subsidy is retained by Govt. of India.

In order to promote sustainable and balanced use of fertilizers ICAR is recommending soil test based integrated nutrient management through conjunctive use of both inorganic and organic sources (manure, bio-fertilizers etc.) of plant nutrients. In order to promote the use of bio-fertilizers, ICAR has developed improved and efficient strains of bio-fertilizers specific to different crops and soil types. Liquid Biofertilizer technology with higher shelf-life has also been developed. Besides, ICAR has developed technology to prepare various types of biofertilizer / bio-enriched organic manures.

ICAR is implementing “Network Project on Organic Farming (NPOF)” with 20 cooperating centres covering 16 States. Location specific organic farming packages have been developed for 68 cropping systems suitable for 16 States and are demonstrated through central and state schemes. Similarly, “Evaluation and Validation of Natural Farming Practices in Different Agro-Ecologies” have been initiated in 16 states involving multi-location evaluation of 8 major cropping systems. These methods / technologies are promoted through demonstration, farmers’ awareness campaigns and KVK. The ICAR also imparts training to educate farmers on organic farming practices. All these measures are aimed to promote restoration, awareness generation and amelioration of mother earth envisioned in PM-PRANAM.

Camps/Kisan Sangoshtis are being organised for promotion of FOM/LFOM/PROM under PM-PRANAM by the Fertilizer companies.

(d): Under the MDA scheme, there is a provision to undertake R&D activities in the fields related to FOM/LFOM/PROM. Under this Scheme, this Department has approved following three proposals relating to research and development w.r.t FOM/LFOM/PROM :

- i. ICAR’s proposal on “Enrichment of FOM produced from CBG plants and development of Package of Practices (PoP) for Major Crops” with a total financial implication of Rs.235.00 lakh, to be completed within two years from the date of signing of agreement i.e. 30.8.2024
- ii. Dr. Y.P. University of Horticulture & Forestry (HP) proposal on “Efficacy studies of Phosphate Rich Organic Manure (PROM) on important fruit and vegetable crops of Himachal Pradesh” with a total financial implication of Rs.98.33 Lakh, to be completed within three years from the date of signing of agreement i.e.27.08.2024.
- iii. ICAR proposal on “Awareness and Demonstrations for Popularization of Fermented Organic Manure (FOM)/Liquid Fermented Organic Manure (LFOM) through Krishi Vigyan Kendras (KVKs)” with a total financial implication of Rs. 11.79 Crore, to be completed within two years.
