

GOVERNMENT OF INDIA  
MINISTRY OF CHEMICALS AND FERTILIZERS  
DEPARTMENT OF FERTILIZERS

**RAJYA SABHA**

**UNSTARRED QUESTION NO. 1778 TO BE ANSWERED ON: 16.12.2025**

**Development of green chemicals and bio-based fertilizers**

**1778# Shri Sanjay Kumar Jha:**

Will the Ministry of **Chemicals and Fertilizers** be pleased to state:

- a) Whether Government has worked on the development of green chemicals and bio-based fertilizers if so, the details thereof;
- b) Whether an environmental impact assessment has been conducted for these efforts, if so the details thereof; and
- c) Whether farmers are being provided training and subsidies for these new eco-friendly fertilizers?

**ANSWER**

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

(a) and (b) The Government, under the scheme for setting up Centres of Excellence (CoEs) provides grant-in-aid to identified research institutes with the objective of improving the existing technology and research in the country and to promote the development of new applications in chemicals sector. Under the scheme, the Government provides financial support to each CoE to the extent of a maximum of 50% of the total cost of the project, subject to an upper limit of Rs. 5 Crore. So far, 18 CoEs have been approved under the scheme, including two focused on the development of green chemicals. Details of the research areas by these CoEs are as under:

- (i) 'Development of green and novel surfactants and promoting indigenous production of speciality chemicals' at the Indian Institute of Technology, Kanpur.
- (ii) 'Coal to Acetylene and Fine Chemicals' at Indian Institute of Technology (Indian School of Mines), Dhanbad, which has the objective of Integrated development of plasma reactor design, coal preparation, one-step coal-to-acetylene conversion, and catalytic upgrading to fine chemicals.

The Government is also implementing the National Green Hydrogen Mission (NGHM), with an objective to make India a global hub of production, usage and export of green hydrogen and its derivatives.

Furthermore, the Government has taken several initiatives for the promotion of Bio & organic fertilisers in the country as follows:

A. ICAR under All India Network Project on Soil Biodiversity Biofertilizers (AINP SBB) has developed 32 biofertilizers and various composting technologies. The integrated approach for better crop productivity and soil health recommends use of organic, bio and chemical fertilizers. Organic fertilizers including biofertilizers has been promoted for application by the farmers through demonstrations, training, campaigns etc. ICAR has initiated a network project entitled “Evaluating Green Ammonia as an Alternate Nitrogenous Fertilizer in Dominant Soil and Cropping Systems of India” with 04 cooperating centers, 4 Agro-Climatic Zones (AEZs) and 6 major crops for two years.

B. National Centre for Organic and Natural Farming (NCONF) promotes organic and natural farming including the use of Bio-inputs among farmers in different ways which are as follows:

- i. Organizing HRD Trainings for various stakeholders to promote organic & natural farming including certification system.
- ii. Formulating standards and certification Systems and implementation of PGS-India certification system (organic and natural).
- iii. Compilation and Publication of Farmer practices and scientific validations including Training Literature (OF, NF and Certification).
- iv. IEC activities (organizing/participating in National/ International Exhibitions/ Trade Fairs, Seminars.
- v. Quality Control as per FCO 1985, including formulation/validation of standards and procedures

C. Paramparagat Krishi Vikas Yojana (PKVY), launched in 2015, is an extended component of Soil Health Management (SHM) under the Centrally Sponsored Scheme (CSS), National Mission on Sustainable Agriculture (NMSA). PKVY aims at supporting and promoting organic farming, in turn resulting in improvement of soil health. The scheme promotes Participatory Guarantee System (PGS- India) of organic certification which is built on principles of mutual trust, transparency, locally relevant and mandates the involvement of producers and consumers in the process of certification. PGS – India operates outside the framework of “Third Party Certification”.

D. Bhartiya Prakritik Krishi Padhati (BPKP) under an umbrella scheme of Paramparagat Krishi Vikas Yojana (PKVY) aims at promoting traditional indigenous practices which gives freedom to farmers from externally purchased inputs and is largely based on on-farm biomass recycling with major stress on biomass mulching, use of cow dung-urine formulations and plant based preparations in exclusion of all synthetic chemical inputs directly or indirectly. This scheme is compliant to PGS-India certification under PGS India programme. Eight states viz., Andhra Pradesh,

Chhattisgarh, Kerala, Himachal Pradesh, Madhya Pradesh, Odisha, Tamil Nadu and Jharkhand—have opted for the scheme. This sub scheme of centrally sponsored scheme aims to improve farmer's profitability, availability of quality food and restoration of soil fertility and farmland ecosystem as well as generate employment and contribute to rural development.

E. Mission Organic Value Chain Development for North Eastern Region (MOVCDNER) is a Central Sector Scheme, a sub-mission under National Mission for Sustainable Agriculture (NMSA), launched by the Ministry of Agriculture and Farmers Welfare for implementation in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura, during the 12th plan period. The scheme aims to development of certified organic production in a value chain mode to link growers with consumers and to support the development of entire value chain starting from inputs, seeds, certification, to the creation of facilities for collection, aggregation, processing, marketing and brand building initiative.

(c) The Government provides extensive training and subsidies to farmers to encourage the adoption of eco-friendly and bio-based fertilizers. These initiatives are implemented through several dedicated schemes and programs. National Centre of Organic and Natural Farming (NCONF) and its regional centres offer various training sessions and awareness campaigns on natural farming practices and producing on-farm organic inputs. Training is a key part of schemes like the Paramparagat Krishi Vikas Yojana (PKVY) and the Mission Organic Value Chain Development for North Eastern Region (MOVCDNER). Under PKVY, farmers in organic clusters receive assistance, including DBT for organic inputs like bio-fertilizers and vermicompost. Under MOVCDNER, farmers in the North East receive assistance for organic inputs and planting materials.

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