

GOVERNMENT OF INDIA  
MINISTRY OF CHEMICALS & FERTILIZERS  
DEPARTMENT OF CHEMICALS & PETROCHEMICALS

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 3554**  
ANSWERED ON 24/03/2026

**SUSTAINABLE AND ECO-FRIENDLY CHEMICAL  
MANUFACTURING PRACTICES**

3554. SHRI RAVI CHANDRA VADDIRAJU:

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

- (a) whether government has prepared a roadmap to promote sustainable and eco- friendly chemical manufacturing practices in line with international environmental standards;
- (b) the strategies being prioritized to encourage investment and innovation in the domestic chemical sector during the upcoming financial year;
- (c) whether specific measures have been introduced to support small and medium enterprises in the chemical industry, and if not, the reasons therefor; and
- (d) the timeline envisaged for implementing these initiatives to enhance competitiveness and resilience of the chemical and fertilizer sector?

**ANSWER**

THE MINISTER OF STATE FOR CHEMICALS & FERTILIZERS  
(SMT. ANUPRIYA PATEL)

**(a) and (b)**

The chemical manufacturing units are governed by the national environmental regulatory framework that includes - The Environment (Protection) Act, 1986, The Air (Prevention and Control of Pollution) Act 1981 and The Water (Prevention and Control of Pollution) Act 1974 and rules / regulations framed thereunder such

as the Manufacture, Storage, and Import of Hazardous Chemical (MSIHC) Rules, 1989, Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 and Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. These regulations are administered by Ministry of Environment, Forest & Climate Change (MoEF&CC).

To encourage investment into the sector, 100% Foreign Direct Investment is permitted under the automatic route. The following initiatives have been taken to attract investment to promote sustainable development and innovation:

- i. The Department has implemented the Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) scheme. Through this initiative, growth of industry in a cluster-based model with common infrastructure and basic utilities is promoted, which also facilitates sustainable development and circular economy. There are 3 such PCPIRs which have been setup in the country.
- ii. To promote investment and development of this sector, the Department has also established 9 Plastic Parks.
- iii. The Department has established 18 Centres of Excellence (CoE) to support research initiatives in chemical and petrochemical sector and to promote innovation.
- iv. A scheme has been announced in the recent budget to support states to establish three dedicated chemical parks on a cluster based, plug-in play model in order to promote investment in the sector.

### **(c) and (d)**

Ministry of Micro, Small & Medium Enterprises (MSME) has brought following schemes to support all MSMEs in the country including those in the chemical industry. The details are as under:

**(i) Scheme for Promotion and Investment in Circular Economy (SPICE):** This scheme promotes circular economy in the MSME sector by incentivizing micro and small enterprises to adopt circular economy practices with respect to management of different types of wastes including plastic, rubber and e-waste.

**(ii) MSME-Sustainable (ZED) Certification Scheme:** This scheme envisages promotion of Zero Defect Zero Effect (ZED) practices to enable MSMEs for manufacturing of quality products using latest technology, tools & to constantly upgrade their processes for achievement of high quality and high productivity with the least effect on the environment.

**(iii) MSME-Competitive (Lean) Scheme:** This scheme aims to make MSMEs competitive in the domestic and global market by optimizing the manufacturing process.

**(iv) MSME-Innovative (Incubation, Design & IPR) Scheme:** This scheme aims to innovate in incubation, design intervention and by promoting Intellectual Property Rights awareness amongst MSMEs.

**(v) Micro and Small Enterprises Green Investment and Financing for Transformation (MSE-GIFT) Scheme:** This scheme aims to develop an ecosystem wherein institutional finance is made available to micro and small enterprises at a concessional cost for adoption of clean/green and energy efficient technologies.

\*\*\*\*\*