

GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS AND FERTILIZERS
DEPARTMENT OF FERTILIZERS

RAJYA SABHA

UNSTARRED QUESTION NO. 831 TO BE ANSWERED ON: 30.07.2024

ADOPTION OF NEW TECHNOLOGY IN FERTILIZER SECTOR

831: DR. FAUZIA KHAN:

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

- (a) whether initiatives are underway to adopt new technology in the fertilizer industry to minimize pollution caused in water bodies nearby;
- (b) whether water in lakes and rivers are being tested for toxicity caused by chemical fertilizers being used in large scale;
- (c) if so, the details of the remedies being implemented;
- (d) whether strategies have been developed to educate farmers about the benefits and usage of new technology in fertilizer production to reduce pollution and enhance efficiency; and
- (e) if so, the details thereof?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF CHEMICALS & FERTILIZERS

(SMT. ANUPRIYA PATEL)

(a) to (c): Fertilizer plants have adopted 3R methodology i.e reduce, reuse and recycle to reduce the waste water generation and discharge. The major ammonia-urea and complex fertilizer plants have adopted IS/ISO14001 Environment Management Standard. The plants have adopted technology for recycle of waste water in the process. Many complex fertilizer plants have achieved zero effluent discharge. The SSP plants are also zero effluent discharge plants. Fertilizer plants are upgraded by latest technologies such as lamella clarifier, ultrafiltration and Reverse Osmosis (RO). RO reject water is treated in multiple-effect evaporators and reused as cooling tower makeup and in process. The latest urea plants commissioned have adopted reverse osmosis technology to achieve zero liquid discharge. The sewage treatment plant (STP) in fertilizer plants are upgraded to technologies like membrane bio-reactor (MBR) which makes treated water from STP suitable to be reused as cooling tower make-up water. As a result of concerted efforts, fresh water consumption has been halved and the waste water (trade effluent) discharge has been reduced by almost 80% by fertilizer plants over last 35 years.

(d) & (e): Farmers are educated about the integrated nutrient management system comprising of fertilizers, bio-fertilizers, organic fertilizers and also innovative fertilizer products such as Nano Fertilizers & Sulphur Coated Urea. Farmers are also educated about the importance of balanced use of fertilizer to reduce over-use of fertilizers and hence impact on environment.

Further, Government of India has launched the Namo Drone Didi Scheme which is promoting the use of drones in agriculture sector. Drones equipped with sensors and sprayers can apply pesticides, herbicides, and fertilizers with high precision. This reduces the overall amount of chemicals used, minimizing runoff into water bodies
