

CORPORATE OFFICE

Delhi Office

706 Ground Floor Dr. Mukherjee
Nagar Near Batra Cinema Delhi -
110009

Noida Office

Basement C-32 Noida Sector-2
Uttar Pradesh 201301



Date: 3 May 2024

GOVERNMENT PUSH FOR BALANCED FERTILIZERS

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "**Government Push For Balanced Fertilizers**". THIS TOPIC IS RELEVANT IN THE "**Economy**" SECTION OF THE UPSC CSE EXAM.

Why in the News?

In the fiscal year concluding in March 2024, India saw a remarkable surge in urea consumption, reaching an unprecedented 35.8 million tonnes. This figure marks a **substantial increase of 16.9% from the 30.6 million tonnes** recorded in 2013-14. In response, the government is implementing measures aimed at encouraging **balanced fertilization practices** and diminishing the nation's reliance on imported urea.

ABOUT BALANCED FERTILIZATION

- Balanced fertilization refers to the practice of providing crops with the appropriate mix and amount of essential nutrients they need for optimal growth and productivity.
- Balanced fertilization entails the application of an appropriate combination, quantity, placement, and timing of different essential plant nutrients, such as nitrogen (N), phosphorus (P), potassium (K), sulfur, and micronutrients.

Need for Balanced Fertilization in India

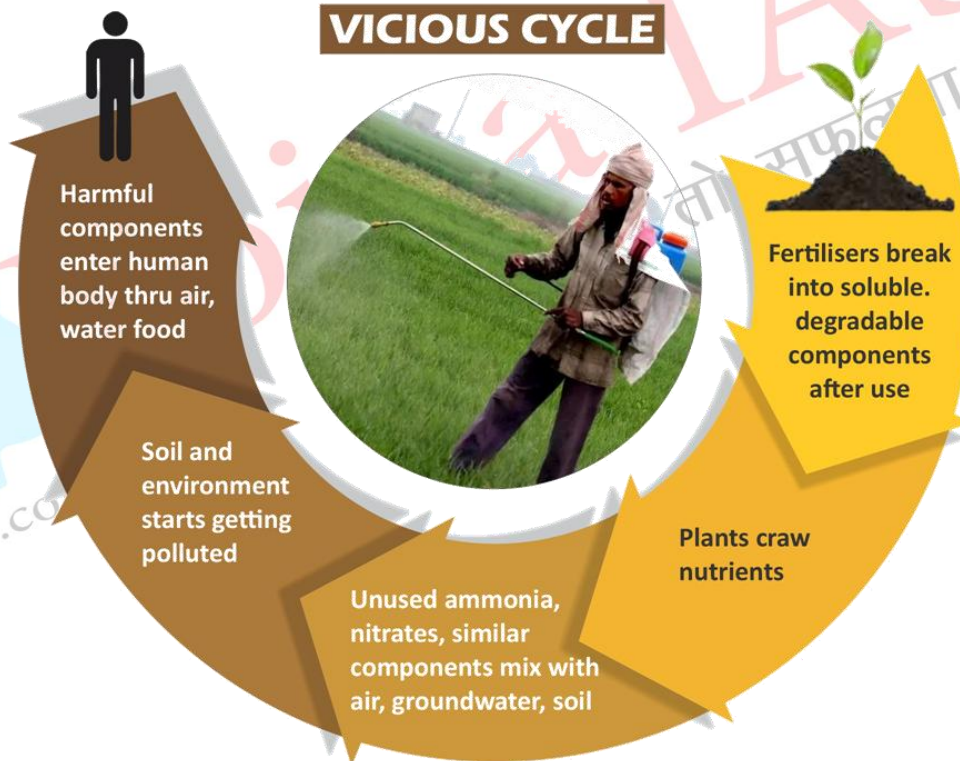
- **High urea consumption:** Urea consumption in India reached a record high of 35.8 million tonnes in the fiscal year ended March 2024, which was 16.9% higher than the 30.6 million tonnes in 2013-14.
- **Soil Health Degradation:** Overuse of fertilizers, particularly nitrogen and phosphorus-based ones, can lead to soil degradation. Excessive application alters the soil's pH levels, reducing its fertility over time. This degradation diminishes the soil's ability to retain water and nutrients, ultimately affecting crop yields and agricultural productivity.
- **Water Contamination:** When fertilizers are applied excessively or incorrectly, they can leach into water bodies through runoff or percolation, causing water pollution. Nitrogen and phosphorus runoff from agricultural fields contribute to the eutrophication of water bodies, leading to algal blooms and oxygen depletion, which harm aquatic ecosystems and fisheries.

- **Atmospheric Pollution:** Certain fertilizers release ammonia gas and nitrous oxide into the atmosphere, especially when applied in excess or under inappropriate conditions. These gases contribute to air pollution and are potent greenhouse gases, exacerbating climate change and posing risks to human health.
- **Health Hazards:** Exposure to high levels of nitrogen fertilizers and their derivatives, such as nitrates, in drinking water can pose serious health risks, including methemoglobinemia (blue baby syndrome) and certain types of cancer.
- **High import Dependency:** India relies heavily on imported fertilizers, particularly urea, to meet its domestic demand. Excessive consumption exacerbates this dependency, exposing the agricultural sector to price fluctuations in the global market and vulnerabilities in the supply chain.
- **High Fertilizer subsidy:** In the preceding fiscal year of 2023-24, the government's overall subsidy expenditure on fertilizers surged notably, reaching Rs 2.25 lakh crore. This marked a substantial rise of 114% compared to the initial budget projections.

IMPACTS OF CHEMICAL FERTILIZERS



VICIOUS CYCLE



Difficulties in advocating for balanced fertilization

- **Adherence to Traditional Practices:** Farmers often adhere to traditional farming methods passed down through generations. Convincing them to adopt new approaches, especially if they perceive them as unfamiliar or risky, can be met with resistance.
- **High Initial Cost:** Implementing balanced fertilization practices may initially require additional investments in soil testing, nutrient analysis, and adopting precision agriculture

techniques. Farmers, particularly those with limited financial resources, may be hesitant to incur these costs without a guarantee of immediate returns.

- **Lack of access to Inputs:** In some regions, farmers may face challenges in accessing quality fertilizers and other inputs necessary for balanced fertilization. Limited availability or affordability of fertilizers, especially in remote or rural areas, can hinder adoption of these practices.
- **Market pricing:** Market dynamics, including fluctuating fertilizer prices and availability, can influence farmers' decisions regarding fertilizer usage. Subsidies or incentives that prioritize certain types of fertilizers over others may distort market signals and discourage adoption of balanced fertilization practices.
- **Policy and Regulatory Framework:** Inconsistent or unclear policies related to fertilizer use, subsidies, and soil health management can hinder efforts to promote balanced fertilization. Lack of enforcement mechanisms or regulatory support may undermine initiatives aimed at encouraging sustainable agricultural practices.
- **Lack of awareness:** Many farmers lack awareness or understanding of the concept of balanced fertilization and its benefits and the negative impacts of excessive fertilizer use. This lack of awareness can hinder the adoption of balanced fertilization practices

Government response to control excessive Fertilizer consumption

PM PRANAM Scheme (PM Programme for Restoration, Awareness, Nourishment, and Amelioration of Mother Earth):

- The scheme is designed to promote sustainable agricultural practices by reducing reliance on chemical fertilizers and encouraging the balanced utilization of alternative fertilizers.
- This initiative aims to alleviate the projected subsidy burden on chemical fertilizers, which is anticipated to escalate to Rs 2.25 lakh crore by 2022-2023, while simultaneously enhancing the resilience of Indian agriculture in the face of climate change.
- Under the scheme, states that exhibit below-average consumption of chemical fertilizers over the preceding three years will be incentivized. These states stand to receive 50% of the subsidy savings as grants, which can be allocated towards initiatives such as asset creation, technological adoption, and awareness campaigns pertaining to alternative fertilizers.

One Nation One Fertilizer (ONOF):

- Introduced in 2022 by the Ministry of Chemicals and Fertilizers, the initiative, alternatively termed as **Pradhan Mantri Bhartiya Jan Urvarak Pariyojana (PMBJP)**, mandates all fertilizer manufacturers participating in the fertilizer subsidy program to adopt a unified brand and logo for their products. Termed as "**Bharat**," this single brand encompasses a comprehensive range of fertilizers, comprising urea, DAP, NPK, and MOP.

Direct Benefit Transfer (DBT):

- Implemented by the Department of Fertilizers in 2016, aims to streamline the subsidy disbursement process for farmers' fertilizer purchases. With this system, subsidies are directly credited to fertilizer companies subsequent to sales transactions with farmers, facilitated by point-of-sale (PoS) devices installed at retail outlets.

Nutrient Based Subsidy (NBS) program:

- Initiated in 2010 by the Department of Fertilizers, aims to offer subsidies based on nutrient content rather than specific fertilizer products. Within this framework, the government establishes predetermined subsidy rates for essential nutrients like nitrogen (N), phosphorus

(P), potassium (K), and sulphur (S) on an annual basis. Manufacturers and importers retain flexibility in determining the retail prices of their products in response to prevailing market dynamics.

Neem Coated Urea (NCU) initiative:

- Introduced by the government in 2015, aims to encourage the adoption of organic urea for enhancing soil health and improving crop yields. Within this program, farmers are encouraged to utilize solely neem-coated organic urea, resulting in approximately 10% savings. Neem-coated urea refers to urea treated with neem tree seed oil.
- To ensure adherence to agricultural use, the government has mandated that all domestically produced and imported urea must undergo neem coating.

Prelims based Question

Q1. Consider the following Statement About PM-PRANAM scheme:

1. The scheme aims to reduce the dependence on Chemical Fertilizers.
2. This is an incentive-based scheme, states that exhibit low consumption of chemical fertilizers over the preceding three years will be incentivized.

Choose the correct answer using the codes given below:

- (a).1 Only
- (b).2 Only
- (c).Both 1 and 2
- (d). Neither 1 nor 2

ANSWER: C

Mains based Question

Q1. Discuss the significance of balanced fertilization in sustaining crop productivity and soil health, highlighting the key principles and benefits associated with this agricultural practice.

[Vikas](#)

INDIAN RENEWABLE ENERGY DEVELOPMENT AGENCY

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "INDIAN RENEWABLE ENERGY DEVELOPMENT AGENCY". THIS TOPIC IS RELEVANT IN THE "ENVIRONMENT" SECTION OF THE UPSC CSE EXAM.

WHY IN THE NEWS?

The government of India recently granted the Indian Renewable Energy Development Agency (IREDA) 'Navratna' status, bringing the total number of Navratna PSEs to 17.

Shares of the Indian Renewable Energy Development Agency (IREDA) surged more than 12 per cent during Monday's trading session after the government of India gave the company's 'Navratna status' on Friday. The company informed us about this through an exchange filing. Following the update, shares of IREDA surged 12.45 per cent to Rs 192 on Monday, commanding a total market

capitalization of more than Rs 51,000 crore. The scrip had settled at Rs 170.65 in the previous trading session on Friday.

WHAT IS NAVRATNA'S STATUS?

To qualify as a Navratna company, a public sector enterprise needs to meet certain criteria set by the Department of Public Enterprises (DPE) under the Ministry of Heavy Industries and Public Enterprises. Some of the key criteria include:

- The company must be a Miniratna Category-I enterprise for at least three years and be included in Schedule A of Central Public Sector Enterprises (CPSEs).
- The company must have a consistent track record of profitability, net worth, and turnover.
- To attain Navratna status, a company needs to either have a net profit above Rs 5,000 crore for three straight years, an average annual turnover of Rs 25,000 crore over three years, or an average annual net worth exceeding Rs 15,000 crore for three years.
- The company should have a strong presence in international markets or potential for global expansion.
- The company must have significant operational autonomy in decision-making.

Obtaining Navratna status in India greatly benefits Public Sector Undertakings (PSUs). These include greater financial and operational autonomy, allowing for swifter decision-making and improved responsiveness to market shifts. The enhanced freedom also translates to increased investment opportunities, attracting capital for growth initiatives. Further, the Navratna designation serves as a mark of excellence, bolstering the PSU's market reputation and attracting skilled personnel. This combination of factors empowers Navratna PSUs to operate more efficiently, compete more effectively, and achieve sustainable growth.

ABOUT THE INDIAN RENEWABLE ENERGY DEVELOPMENT AGENCY:

The Indian Renewable Energy Development Agency (IREDA) is a specialized financial institution in India that promotes and finances renewable energy projects. Established in 1987, it operates under the administrative control of the Ministry of New and Renewable Energy (MNRE), Government of India. In 2015, it received the status of Mini Ratna (Category-I).

KEY FUNCTIONS AND ROLES OF IREDA INCLUDE:

1. **Financing:** IREDA provides financial assistance to renewable energy projects through loans, term loans, lease financing, and other innovative financial mechanisms. This helps developers and investors in the renewable energy sector to fund their projects.
2. **Project Development:** The agency proactively identifies, evaluates, and promotes renewable energy projects. It assists project developers in project planning, feasibility studies, and structure.
3. **Risk Mitigation:** IREDA helps mitigate risks associated with renewable energy projects by providing financial support and guidance. This includes assessing project viability, market risks, and regulatory compliance.
4. **Market Development:** IREDA contributes to the growth of the renewable energy market in India by fostering partnerships, collaborations, and knowledge sharing among stakeholders. It also promotes awareness about renewable energy technologies and their benefits.
5. **Policy Support:** IREDA collaborates with the government and regulatory authorities to formulate policies, regulations, and incentives to support the growth of the renewable energy

sector. It provides inputs based on market trends, industry insights, and technological advancements.

IREDA generates revenue through interest and principal repayments from the projects it finances, as well as by raising funds from the market and borrowing. IREDA is crucial in driving India's transition towards clean and sustainable energy. By providing financial support and facilitating the development of renewable energy projects, IREDA contributes significantly to India's renewable energy goals and its commitment to combating climate change.

MAINS PRACTICE QUESTIONS:

- Q. How does IREDA facilitate renewable energy growth in India? What obstacles does IREDA encounter in funding renewable energy initiatives, and what strategies does it employ to overcome these challenges?**
- Q. What criteria must a state-owned corporation in India meet to be granted Navratna status? Additionally, what advantages does obtaining this status offer to a public sector company in terms of growth?**

[Amit pradhan](#)

