15

STANDING COMMITTEE ON CHEMICALS AND FERTILIZERS

(2024-25)

EIGHTEENTH LOK SABHA

MINISTRY OF CHEMICALS AND FERTILIZERS
(DEPARTMENT OF FERTILIZERS)

SELF SUFFICIENCY IN PRODUCTION OF FERTILIZERS WITH A VIEW TO CURB IMPORT OF FERTILIZERS-REVIEW OF CONSTRAINTS THEREOF"

FIFTEENTH REPORT

LOK SABHA SECRETARIAT

NEW DELHI

AUGUST, 2025/ SHRAVAN, 1947 (SAKA)

CC&F.No. 196

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(2024-25)

Presented to Lok Sabha Speaker on 4th October, 2025

Laid in Rajya Sabha on 21st August, 2025

LOK SABHA SECRETARIAT

NEW DELHI

AUGUST, 2025/ SHRAVAN, 1947 (SAKA)

CONTENTS

COMPOSITION OF THE STANDING COMMITTEE ON CHEMICALS AND FERTILIZERS (2024-25)

Shri Azad Kirti Jha - Chairperson

MEMBERS

2. Shri Brijmohan Agrawal
3. Shri Ajay Bhatt
4. Shri Robert Bruce C.
5. Shri Bharatsinhji Shankarji Dabhi
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RAJYA SABHA

22. Shri Subhash Barala
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25. Shri Meda Raghunadha Reddy
26. Dr. Kalpana Saini
27. Shri Arun Singh
28. Shri Akhilesh Prasad Singh
29. Shri Tejveer Singh
30. Vacant*
31. Vacant&

*Vacant *Vice* Nomination of Shri Niranjan Bishi, MP (Rajya Sabha) has changed *vide* Rajya Sabha Bulletin-Prt II, Para No. 64908 dated 21.11.2024.

& Vacant *vice* Dr. Anbumani Ramadoss, MP (Rajya Sabha) retired from the membership of Rajya Sabha w.e.f. 24.07.2025.

SECRETARIAT

1.	Smt. Maya Lingi	-	Joint Secretary
2.	Ms. Miranda Ingudam	-	Director
3.	Shri Panna Lal	-	Deputy Secretary

INTRODUCTION

I, the Chairperson, Standing Committee on Chemicals & Fertilizers (2024-25) having been authorized by the Committee do present on their behalf, this Fifteenth Report (Eighteenth Lok Sabha) on 'Self-sufficiency in production of fertilizers with a view to curb import of fertilizers-review of constraints thereof' pertaining to the Ministry of Chemicals and Fertilizers (Department of Fertilizers).

2. The Committee had a briefing by the representatives of the Department of Fertilizers on 06th January, 2025 and took oral evidence of the representatives of the Department of Fertilizers at their sitting held on 9th May, 2025.

3. The Committee considered and adopted this Report at their Sitting held on 7th August, 2025.

4. The Committee wish to express their thanks to the officers of the Department of Fertilizers, Ministry of Chemicals and Fertilizers for tendering evidence and placing before the Committee all the requisite information related to examination of the subject.

5. The Committee also place on record their appreciation for the valuable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

6. For ease of reference and convenience, the Observations/ Recommendations of the Committee have been printed in bold letters in the body of the Report.

New Delhi;
19 August, 2025
28 Shravan, 1947(Saka)

Azad Kirti Jha
Chairperson,
Standing Committee on
Chemicals and Fertilizers.

REPORT

PART- I

INTRODUCTORY

I. Crucial Role of Fertilizers for the Country's food security.

Fertilizer availability directly impacts food security in India by influencing crop yields, agricultural productivity and ultimately the affordability and accessibility of food. With substantial population dependent on agriculture for livelihood and a rapidly growing population to feed, consistent and affordable access to key fertilizers-namely Urea, DAP (Di-Ammonium Phosphate) and NPK (Nitrogen, Phosphorus, Potassium) complexes is vital to ensure that food production meets domestic demand.

2. India imports a significant share of its fertilizer requirements, particularly potash and phosphate-based fertilizers and raw materials like natural gas (used in urea production). This dependence exposes the country to global market shocks, geopolitical risks and currency fluctuations. Achieving self-sufficiency through domestic production, diversified sourcing, and indigenous R&D reduces these vulnerabilities and enhances strategic autonomy, stabilizes subsidies, and ensures timely availability of fertilizers to farmers during critical crop seasons.

Broad varieties of Fertilizes used by the farmers

3. The broad varieties of chemicals fertilizers being used by the farmers in the Country are Urea, DAP, MOP, NPKS and SSP.

4. In case of P&K fertilizers, Nutrient based subsidy (NBS) Policy is applicable on 28 Grades including Di- Ammonium Phosphate (DAP), Mono Ammonium Phosphate (MAP), Muriate of Potash (MOP), Triple Super Phosphate (TSP), 03 grades of Single Super Phosphate (SSP), Ammonium Sulphate (AS), produced by FACT and GSFC, Potash Derived from Molasses (PDM) and other 19 grades of NPKS Complex fertilizers.

5. FOM/LFOM/PROM (categorized as soil carbon enhancers vide DA&FW Notification dated 27.3.2025) produced at CBG plants are used by farmers.

6. Initiating the briefing before the Committee on the Subject, the representative of the Ministry deposed as under:

> "I would like to present a picture in which we have to search for a pathway for self-sufficiency in the fertilizer sector. I believe that self-reliance and self-sufficiency have a thin line between them. Self-sufficiency is actually a kind of management of the deficit in terms of resources that we lack. But we are steadily progressing towards achieving that status."

7. Further, during the briefing, the Secretary, Department of Fertilizers, submitted before the Committee as under:

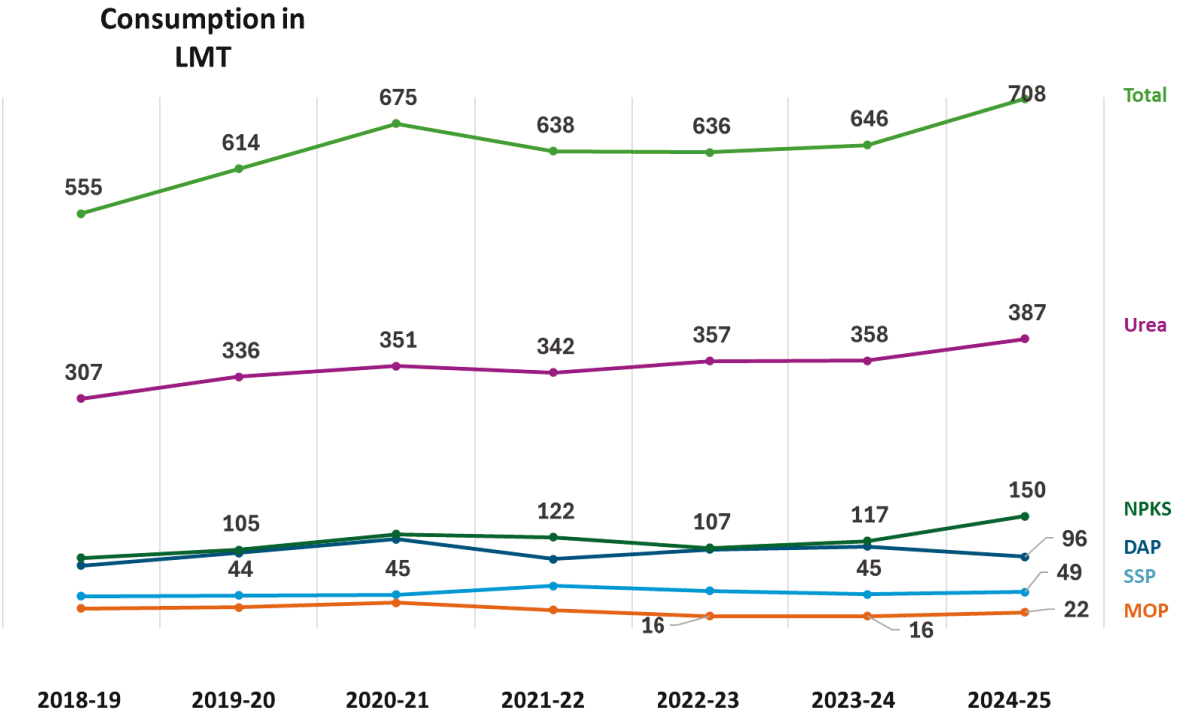
> "I can submit confidently that in the last five years, the decisions which were taken earlier have been fructified to a great extent, mainly in terms of urea. And, in P&K, that is DAP, NPKS and MOP, we are also making progress, and a substantial addition to our internal capacity has already been finalized, the result of which will come in 18 months to 2 years."

8. Informing about its mandate, a representative of the Department, during the evidence, informed that based on requirement of fertilizers from concerned Departments and State Governments, etc.; the Department ensures its availability through the fertilizer produced by the companies or imported from abroad so that it reaches to every State according to a supply plan which is supplied at the last day of the season's commencement, that is, 30th of September for the Rabi and 31st of March for Kharif because Kharif starts from April.

II. Fertilizers – An overview of Consumption/ Production and Import.

9. During the course of evidence, the Committee was informed about the trend of fertilizer consumption in India through a Power Point Presentation by a representative of the Department of Fertilizers which is as under: -

CONSUMPTION OF MAJOR FERTILIZERS (IN LMT)



10. In this context, a representative of the Department submitted as under:

"I have actually used this slide to highlight the point that for the first time in the last financial year, 2024-25, during Kharif and Rabi, India's consumption has crossed 700 lakh tons for the first time. So, 7 crore tons of fertilizer has been used in a single year. Out of that 708, about 387 is the urea alone. Also, the MOP, NPK, DAP, and SSP, put together become 320 lakh tons."

11. The Committee was further informed that, out of the total fertilizer consumption; in terms of major nutrients, the share of Nitrogen is 221.5 LMT, Phosphate is 83.9 LMT and Potash is 23.80 LMT.

12**.** Informing about the present total production of various types of fertilizers (including Urea/ P&K/ Nano fertilizers/ Organic fertilizers, etc.) in the Country, the Department informed that since its inception, a cumulative total of 13.27crore bottles (500 ml each) of Nano Urea have been produced across the Country between 2021 to 31st May 2025. Similarly, 3.19 crore bottles (500 ml each) of Nano DAP have been produced across the Country between 2022 to 31st May 2025.

The details of total production of Urea and P&K is as under:

Year	Production of Fertilizer (in 'LMT)		Production in lakh Bottles of 500 ml	Sale in LMT
	Urea	P&K	Nano	Organic
2024-25	306.67	211.21	388.15	2.36

13. Regarding the quantity of fertilizers (in LMT) of various types (including Urea/ P&K, etc.) presently being imported by the Country, the Department informed as under:

Import of fertilizers (Urea, DAP, MOP and NPK) from 2020-21 to 2024-25				
				Qty in LMT
Year	**Urea**	**DAP**	**MOP ***	**NPK**
		as reported by the companies		
2020-21	98.28	48.82	42.27	13.90
2021-22	91.36	54.62	24.60	11.70
2022-23	75.80	65.83	18.66	27.52
2023-24	70.42	55.67	28.69	22.17
2024-25	56.47	45.69	35.41	22.72

*** MOP includes Industrial use and agriculture use both.**

(A) Status regarding Urea

14. Urea Fertilizer have played an important role in making the Country self-reliant in food grain production. It has provided a very vital input for the growth of Indian agriculture and in the attainment of the goal of self-sufficiency in food grains. Urea Subsidy Scheme, which is in existence since the year 1977, has been instrumental in ensuring timely availability of urea to the farmers at affordable price.

15. At present, there are 33 urea units in the Country with a Re-assessed capacity (RAC) of 269.40 LMT. Out of these 33 units, there are 9 units of PSUs with RAC of 60.69 LMT; 6 units of Cooperatives with RAC of 54.19 LMT; 4 units of Joint Venture with RAC of 50.80 LMT; and 14 units of Private companies with RAC of 103.72 LMT. The list of urea units is at **Annexure**. Further, the Urea units are producing around 30-40 LMT of Urea Beyond RAC annually. As such, the present production capacity of indigenous Urea is around 305 LMT per annum.

16**.** The Committee have been informed that against the Urea consumption of 388 LMT during the year 2024-25 its indigenous production has been 307 LMT. Moreover, the consumption of Urea is expected to be 444 LMT during the year 2035-36. In this regard, when asked to furnish details of the plans/ policies/ schemes of the Government to enhance the production/ availability of Urea so as to fulfill the demands domestically, the Department has in its written reply informed as under:

> "With regard to Urea, 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 which includes 4 urea units set up through Joint Venture Companies (JVC) of nominated PSUs and 2 urea units set up by the private companies. The units set up through JVC are Ramagundam urea unit of Ramagundam Fertilizers and Chemicals Ltd (RFCL) in Telangana and 3 urea units namely Gorakhpur, Sindri and Barauni of Hindustan Urvarak&Rasayan Limited (HURL) in Uttar Pradesh, Jharkhand and Bihar, respectively. The units set up by private companies are Panagarh urea unit of Matix Fertilizers and Chemicals Ltd. (Matix) in West Bengal; and Gadepan-III urea unit of Chambal Fertilizers and Chemicals Ltd. (CFCL) in Rajasthan. Each of these units has installed capacity of 12.7 Lakh Metric Tonne per annum (LMTPA). These units are highly energy efficient as they are based on latest technology. Therefore, these units have together added urea production capacity of 76.2 LMTPA, thereby total indigenous urea production capacity Reassessed Capacity, (RAC) has increased from 207.54 LMTPA during 2014-15 to 283.74 LMTPA during 2023-24. Further, an exclusive policy for the revival of Talcher unit of FCIL through JVC of nominated PSUs namely Talcher Fertilizers Limited (TFL) by setting up a new Greenfield urea plant of 12.7 LMTPA at coal gasification route has also been approved.
>
> In addition, the Government also notified the New Urea Policy (NUP) – 2015 on 25th May, 2015 for the existing 25 gas-based urea units with the objectives of maximizing indigenous urea production beyond RAC and promoting energy efficiency in urea production. The NUP-2015 has led to additional production of urea by 20-25 LMT as

compared to the production during 2014-15 annually.

Above steps together have facilitated increase of Urea production from level of 225 LMT per annum during 2014-15 to a Urea Production of 306.67 LMT during 2024-25.

Further, an exclusive policy was notified on 28th April 2021 for the revival of Talcher unit of FCIL by setting up a new Greenfield urea plant of 12.7 LMT per annum at coal gasification route. TFL will be using Coal Gasification Technology for production of Ammonia/Urea. Coal Gasification consists of converting solid coal to synthetic gas which is used as feedstock for synthesis of various chemical products such as ammonia and urea. For making Urea, carbon monoxide is converted into carbon dioxide through shift gas reaction. CO_2 which is commonly called greenhouse gas is emitted from coal. This is separated in closed loop process and is mainly being used as raw material for the manufacture of Urea. In this process, pollutants like CO_2 is recycled for production of Urea and other by products like Sulphur are recovered and marketed. Further, Ash containing harmful heavy metals is converted to inert slag which is essentially non-hazardous.

The Union Cabinet has recently approved the proposal for setting up of a new Brownfield Ammonia-Urea Complex of 12.7 Lakh Metric Tonnes (LMT) annual capacity of Urea production within the existing premises of Brahmaputra Valley Fertilizer Corporation Limited (BVFCL), Namrup, Assam through a Joint Venture (JV), under the New Investment Policy, 2012 read with its amendments on 7th October, 2014".

(B) Status regarding P&K fertilizers.

17. During the evidence, a representative of the Department informed that the production of Urea in the Country has risen from 240 LMT in 2017-18 which was 58% of the demand to 314 LMT which is 62.4 percent during the FY 2023-24. During the same period, the production of P&K fertilizers has risen from 173 LMT to 189 LMT which is 37.6% of demand. As the Country does not have reserves of raw Phosphate and Potash, therefore, every bag of DAP used is import based.

18. The Committee was further informed that, due to this fundamental deficiency of Phosphate and Potash raw materials, these are imported from Russia, Belarus, Germany, Israel, etc. Therefore, even though self-reliance in the sector may not be possible, but self-sufficiency is possible. For this, it is requisite that the Country manages its supply chain of fertilizers and raw materials at a good price on regular basis, especially in case of P&K fertilizers.

19. Regarding the import dependency in the sector, the Committee have been informed that the Country imported 70 LMT of urea during 2023-24 i.e. 39.7% of our requirement, as compared to 60 LMT during 2017-18. As regards P&K fertilizers, our import has increased from 95 LMT during 2017-18 to 106 LMT during 2023-24, which is 60.3 percent of our total demand.

20. The Committee have been informed that the consumption of P&K fertilizers is expected to increase from 246 LMT during 2024-25 to 305 LMT during 2035-36. In this regard, when

asked to furnish details regarding the Policies/ schemes, etc. of the Government to facilitate enhancing the production/ availability of P&K fertilizers in the Country to meet the present and future requirements, the Department in its written reply informed as under:

"*Under the NBS policy, P&K fertilizers are covered under Open General License (OGL) and companies are free to import/produce these fertilizers as per their business dynamics. Based on examination of requests received, permission is granted to the fertilizer companies for increasing their manufacturing capacity and for induction of new P&K companies & their fertilizer products under NBS, with a view to boost manufacturing and make Country self-reliant in fertilizer production. The other measures taken are:*

i. Freight Subsidy on SSP, which is an indigenously manufactured fertilizer, has been approved on pilot basis from Kharif, 2022 and made applicable from Rabi, 2022 onwards to help in promotion of SSP usage for providing Phosphatic or "P" nutrient to the soil.

ii. Relaxation to the minimum production criteria of 50,000 MTPA for availing subsidy by SSP manufacturing units has been extended up to 31.3.2026.

iii. Three new SSP Manufacturing units have been inducted under NBS Scheme with a capacity of 1,00,000 MTPA each (Total 3,00,000 LMTPA) to enhance the capacity of SSP. Approval to the existing SSP Manufacturing units have also been granted for capacity enhancement.

iv. Increase in product basket of P&K fertilizers from 18 in 2010-11 to 28 in 2024-25.

v. Further, in order to boost domestic production, special provisions like Rs. 3500 per MT to cover 'Other Costs' which includes costs incurred from factory gate to farm gate, advantage / disadvantage due to increase / decrease of international prices, and other provision have been extended to both imports and domestic DAP manufacturers for Kharif, 2025 season."

21. A representative of the Department informed the Committee that the consumption of DAP is expected to increase from 109 LMT in 2023-2024 to 118 LMT in 2040-41. Moreover, as per trend, the consumption of NPK fertilizers will increase from 116 LMT to 232 LMT by 2040-41.

22. It has further been informed that the new manufacturing units or enhancement in manufacturing capacity of existing units have been recognized / taken on record under the NBS subsidy scheme, with a view to boost manufacturing and make Country self-reliant in fertilizer production. Further, new units are being set up and production capacities enhanced both by public and private sector through active investment in Phosphatic and Potassic (P&K) fertilizer sector to enhance domestic production, reduce import dependence, and ensure affordable supply for farmers.

(C) Constraints being faced to achieve self sufficiency:

23. Informing about the major challenges in production of P&K fertilizers the Department stated as under:

> *"Country is heavily dependent on imported raw materials for fertilizer production, particularly for P&K fertilizers. In case of P&K fertilizers, Country is deficit in sufficient reserves of rock phosphate and imports nearly 95% of its phosphate requirements from countries like Saudi Arabia, Jordan, Morocco and Russia. India has no known commercial reserves of potash and is 100% dependent on imports from Canada, Russia, Israel and Jordan. There are imports of raw materials/ intermediates such as, rock phosphate, sulphur, ammonia, phosphoric acid and potash (MOP) as essential inputs for producing phosphatic and potassic (P&K) fertilizers. Any increase in global prices of these materials raises the cost of production for the fertilizer manufacturers. Besides, exchange rate fluctuations and global supply chain disruptions due to geo-political reasons also impact the domestic cost of fertilizer production.*
>
> *Besides, India has limited domestic production capacity to produce P&K fertilizers. Overall P&K fertilizer production capabilities in India which includes DAP & NPK is approx. 160 LMT per annum against the total requirement of 240 LMT per annum of P&K fertilizers. India can produce only 45 LMT per annum of DAP and 115 LMT per annum of NPK in the Country.*
>
> *To meet the growing demand for fertilizers and reduce import dependency, the Government of India is actively promoting the production and adoption of innovative Nano Fertilizers.*

24. During the evidence, a representative of the Department giving a brief of the major constraints and challenges faced in the fertilizers sector informed that the Country is presently importing 55 LMT of DAP which is 51 percent of total consumption;28 LMT of MOP which is 100 per cent of the total consumption, 53 per cent of our requirement of Phosphoric acid and 89 percent of our Rock Phosphate requirement. As regards Sulphur, we are deficient in it as we do not have Sulphur mines. So, we are importing 17,00,000 tonnes of Sulphur for the production of NPKs and SSP. As regards imported gas, it is 37 MMSCMD, which is 74 percent of our present total consumption.

25. When asked about the action taken on private companies which import lesser quantities of NPKS fertilizers considering their trade economics without taking into account the consumption requirements during the cropping seasons, it has been informed that under the NBS Policy, if any new company after induction into the subsidy scheme fails to import any subsidized P&K fertilizer continuously for 2 year or any existing company fails to import/does not import any subsidized P&K fertilizer during two continuous financial years, the registration of the importer is deemed to be cancelled. Further, Subsidy is provided to the companies

which are inducted under NBS only on PoS sale of P&K fertilizers. So, if there is no PoS sale, there is no release of subsidy to the company.

III. Ways and means to increase the production of fertilizers.

(A) Revival/ upgradation of Fertilizer plants.

26. On being asked about the revival of the closed fertilizer units in the Country, the Department informed that, two PSUs under administrative control of Department of Fertilizers namely Fertilizer Corporation of India Ltd (FCIL) and Hindustan Fertilizers Corporation Ltd (HFCL) were closed down since September, 2002 due to obsolete technology and high energy consumption of plants and economic unviability. FCIL had five units at Sindri (Jharkhand), Talcher (Odisha), Ramagundam (Telangana), Gorakhpur (Uttar Pradesh) and Korba (Chhattisgarh) while HFCL has three units viz Durgapur, Haldia and Barauni units. Union Cabinet in its meeting held on 04.08.2011 approved revival of Talcher and Ramagundam units of FCIL by forming a Joint Venture of nominated PSUs by setting up gas-based fertilizer plants of 1.27 MMTPA capacity. Further, Union Cabinet in its meeting held on 13.07.2016 approved revival of Gorakhpur & Sindri units of FCIL and Barauni unit of HFCL by forming a Joint Venture of nominated PSUs by setting up gas-based fertilizer plants of 1.27 MMTPA capacity each. Ramagundam, Gorakhpur, Barauni and Sindri fertilizer plants have started urea production w.e.f. 22.03.2021, 07.12.2021, 18.10.2022 and 05.11.2022 respectively whereas Talcher plant is under execution phase.In the Union Budget 2025-26, Government had announced that, “For Atmanirbharta in Urea production, our Government had reopened three dormant Urea plants in the Eastern region. To further augment Urea supply, a plant with annual capacity of 12.7 lakh metric tons will be set up at Namrup, Assam. The tentative overall time schedule for commissioning of Namrup-IV Project is 48 months. The energy efficiency and expected life shall be in line with the modern-day fertilizer plants.

27. The Committee have been informed that out of the 33 Urea plants in the Country; 27 units are over 25 years old and 07 units are over 50 years old. As the fertilizer industry is capital intensive, when asked to furnish details of the Government support/ steps taken to revamp/ upgrade these plants technologically/ enhance their energy efficiency, the Department informed in its written reply as under:

> *“With the objective of maximizing indigenous urea production and promoting energy efficiency in the urea units, Government also notified the New Urea Policy (NUP) – 2015 on 25th May, 2015 for the existing 25 gas-based urea units. The NUP-2015 has led to additional production of urea by 20-25 LMT as compared to the production during 2014-15 annually. Consequent upon the introduction of NUP-2015, several units started implementing the Energy Savings Schemes (ESS) to increase their efficiency and achieving the Target Energy Norms.*”

28. When further asked by the Committee regarding the remaining life span of Urea plants which were over 25 years old and 50 years old and about their timely replacement with new plants, a representative of the Department informed that these old plants are regularly upgrading and revamping themselves through the NUP-2015 which has enhanced their

Energy efficiency and savings. However, the plants life is 35 years plus minus 5 years when it is prime and it goes down after that. So, 50 years is well beyond that lifetime. But because of demand in the market and somehow, they are maintaining it well, it is working. In the next five years, our transition to new technology and replacement is the biggest need of this sector.

29. Regarding these 33 Urea plants, a representative of the Department further informed the Committee as follows:

> *"Now, the replacement of these units is required as if it was to be done yesterday. That is the kind of urgency that we are facing now. I am happy to report, Sir, that this was raised in a recent analysis in the NITI Aayog, and we requested that we must have the financial strength to help the producers to go for this renewal with the best of technology. That is what the replacement will actually mean for us. We cannot have a run-of-the-mill plant. That is why the energy-saving scheme has to be embedded. The plants which are already operating have huge costs of operation and maintenance, which are making them, to some extent, unviable. So, sectoral challenges are not only for rising demand and continuous demand."*

30. During the course of evidence, a representative of the Department informed the Committee that one new Urea plant costs about Rs. 10,000 crores with 12.70 lakh tonnes of production per year. The longevity of that plant is more than 35 years and it goes up to 40 years, but 35 years is the rated life of a chemical plant. So, they will have to take a lot of decisions in terms of adjusting to reality.

31. During the course of evidence, when the Committee desired to know about the specific reasons for shortage of fertilizers especially DAP in the Country, a representative of the Department informed that it was due to international factors as a particular Country did not supply fertilizers to India.

32. In this context, when the Committee, further stressed the need for self-sufficiency in fertilizers through revival of the closed fertilizer units in the Country, which have sufficient land and other infra-structure facilities, a representative of the Department submitted that we are constantly pursuing on these lines.

33. On being asked to provide details of the factors affecting the operation of fertilizer plants to its installed capacity and the Government's initiatives in this regard, the Department in its written reply informed that it conducts regular meetings with the companies and addressing these issues from time to time to ensure that the operations of the plants are not affected due to paucity of raw materials, their prices in the international market, exchange rate fluctuations, supply chain issues & geo-political situation, etc.

34. In this regard, informing about the problems being faced by some of its fertilizer PSU's,

etc. which affects their production and energy efficiency, the Department further informed as under:

"BVFCL's production & energy performance has been affected due to ageing of the plants and obsolescence of equipment/ unavailability of the spares of the equipment. However, PDIL has been approached for Performance Study of Namrup-III plants of BVFCL, identification of weak areas and recommendation for remedial measures so that Plants may become capable of operating optimally.

As regards RCF, both of its units i.e., RCF Thal Unit and RCF Trombay are in operation for more than 40 years which results in some unforeseen breakdown leading to production interruption. However, regular preventive maintenance activities are planned to avoid any major breakdown. As availability of critical spare parts for maintenance of equipment is essential, replacement of this critical equipment like Urea reactors, stripper, carbamate condensers, compressors etc. is planned in a phase-wise manner in both the units.

As regards NFL, all its plants are operating on more than installed capacity. However, NFL Vijaipur-I unit still could not meet the target energy norms of 5.5 Gcal/MT of Urea owing to inherent design limitation and intrinsic high energy which may require additional Capex to bring down the energy consumption below 5.5 Gcal/MT of Urea."

35. When asked about the plans/ proposals of the Ministry to render financial support to its PSUs through Capital Expenditure so as to facilitate their modernization/ increase production capacity, the Department in its written reply informed as under:

"PSUs such as NFL and RCF were given Navratna status which enabled them to have more flexibility in investment by adopting new technologies. Also, both RCF and FACT are planning capacity enhancement in P&K sector. RCF, Thal has planned a new DAP/NPK plant with annual capacity of 5 LMT and FACT, Kochi has also planned a DAP/NPK plant with annual capacity of 5.5 LMT. RCF has sourced mineral potash from Russia to produce NPK at competitive rate. Target Energy Norms of RCF and NFL have rationalized gas consumption which influences global prices to some extent.

Further, NFL is in the progress of implementing Hi-Tech Nano Urea project (with more nitrogen content, which will give more benefit to the farmers) in Nangal Unit. Moreover, RCF has informed that their estimated total investment/expenditure in respect of Nano Urea is likely to be Rs. 238.30 crores whereas in respect of Nano DAP it is likely to be Rs. 4.89 crores."

36. As the Country is dependent on imports of different fertilizers (Urea, Phosphatic fertilizers, Potassic Fertilizers, etc.), when asked to inform about proposal for introducing Production Linked Incentive (PLI) scheme in fertilizers sector to incentivize/ augment domestic production of Fertilizers/ fertilizer implements which may curtail the expenditure on their imports and also help accomplish the goals of Aatmanirbhar Bharat the Department in its written reply stated that Government has implemented the Nutrient Based Subsidy (NBS) Policy for Phosphatic and Potassic (P&K) fertilizers, while under the Urea Subsidy Scheme, Urea is presently provided to the farmers at a statutorily notified Maximum Retail Price (MRP) of Rs.242 per bag (exclusive of charges towards neem coating and taxes as applicable) per 45 kg bag of urea. The difference between the delivered cost of urea at farm gate and net

market realization by the urea units is given as subsidy to the urea manufacturer/importer by the Government of India; therefore, the question of introducing PLI scheme does not arise.

37. When asked about the plans to upgrade and modernize the old fertilizer PSUs with the latest technology to ensure better fertilizer production, the Department informed that the Government of India mandated revival of Ramagundam (Telangana), Gorakhpur (Uttar Pradesh), Sindri (Jharkhand) and Talcher (Odisha) units of Fertilizer Corporation of India and Barauni (Bihar) unit of Hindustan Fertilizer Corporation Limited through Joint Venture Company of nominated PSUs for setting up new ammonia-urea plants of 12.7 LMTPA capacity each. The revival of Talcher unit of FCIL is under execution stage and after operationalization of Talcher unit, a total of 63.5 LMTPA of domestic production would be added. In addition, there is a proposal to set up a new fertilizer plant at Namrup, Assam of 12.7 LMTPA capacity.

38. On being asked about the proposal for revival of Durgapur and Haldia Units of HFCL considering their strategic locations, the Department in its written reply informed as under:

> **"**At *present, three units of FCIL viz. Ramagundam, Gorakhpur & Sindri plants and one unit of HFCL i.e. Barauni have been revived by setting up new Ammonia Urea plants of 12.7 LMTPA capacity each by forming a Joint Venture Company of nominated PSUs. Further, another unit of FCIL at Talcher is under execution and has achieved an overall physical progress of 65.02 % as on 31st January, 2025. Therefore, decision on revival of other units of FCIL and HFCL would be taken based on the demand supply gap of urea after operationalization of all these five plants."*

39. During the evidence, the Committee have been informed that the production of Urea in 2023-24 was 314 LMT which has come down to 307 LMT during the year 2024-25 because one private plant with an annual capacity of 12 LMT has been sold and is out of Urea. In this regard, when asked if the Government is working on policies so as to regulate the sale/ disinvestment process of fertilizer units so that the purchaser(s) may be bound to continue with the production of Urea/ fertilizer, etc. so that the Country's interests/ production capacity does not decline; the Department in its written reply informed as under:

> "There is no such proposal is under consideration in the Department."

40. Regarding the steps taken to reduce import dependence on P&K fertilizer products, the Department in its written reply informed that the Government has taken the following measures to boost domestic production:

i) *"Measures have been taken to increase the number of P&K fertilizers under NBS. As a result, the number of P&K fertilizers covered under NBS policy has increased from 22 grades in 2021 to 28 grades at present with a view to boost manufacturing and make Country self-reliant in fertilizer production. The 06 new grades added are NPK 08-21-21, NPK 09-24-24, Potash Derived from Molasses (PDM) (0-0-14.5-0), NPK*

11-30-14 fortified with Magnesium, Zinc, Boron and Sulphur, Urea-SSP Complex 5-15-0-10 and SSP 0-16-0-11 fortified with Magnesium, Zinc and Boron.

ii) Further, new manufacturing units or increase in manufacturing capacity of existing units have been recognized / taken on record under the NBS subsidy scheme, with a view to boost manufacturing and make Country self-reliant in fertilizer production. These efforts have facilitated increase in installed capacity of P&K fertilizers from 146.24 LMT during 2014-15 to 177 LMT as on 31.01.2025. The installed capacity of SSP has increased from 96.07 LMT during 2014-15 to 126 LMT as on 31.01.2025."

41. Giving details of new units/ capacity enhancement proposed both by Public and Private enterprises, the Department further informed as under:

i. "RCF, Thal has planned a new DAP/NPK plant with 1200 MTPD capacity to produce various grades of NPK including DAP thereby augmenting domestic production. After completion of this project, RCF's NPK production capacity will increase from @ 6LMT to 10 LMT per annuum.

ii. FACT, Kochi has planned a new 1650 MTPD NPK Plant at Cochin, Ambalamedu. With the completion of this project, Company can enhance fertilizer production capacity from 10 LMT to 15 LMT per year.

iii. CIL will get from Senegal around 2 LMT of Rock Phosphate. This will help in strengthening CIL's backward integration and will ensure long term supply security of the key raw material. CIL is strengthening its Phosphoric acid capacities by augmenting its captive production and leveraging its overseas partnerships in Tunisia and South Africa.

iv. PPL's installed capacity of phosphoric acid plant at Paradeep to increase from 3 LMT to 5 LMT."

42. About its efforts to increase the consumption of NPK fertilizers which is more balanced fertilizer with three or more nutrient content (Nitrogen, Phosphate, Potash, Sulphur)as compared to two nutrients (Nitrogen and Phosphate) in DAP and one nutrient (Nitrogen) in urea, the Department in its written reply informed that it is regularly ensuring adequate availability of NPKs in the States to increase its consumption. Presently, India produces approx. 100 LMT NPKs per annum. Three more new NPK plants are under construction with approx. capacity of 18 LMT per annum. Due to continuous efforts, consumption of NPKs has increased to 140.69 LMT during the year 2024-25 as compared to 109.87 during 2023-24 i.e. an increase of 30.82 LMT.

(B) Commissioning of new Fertilizer plants.

43. About the commissioning of Talcher Fertilizers Ltd. (TFL)through coal gasification technology and revival of the closed Korba unit of Fertilizer Corporation of India Limited

(FCIL)and Durgapur and Haldia units of Hindustan Fertilizer Corporation Limited (HFCL) which are strategically located and may augment indigenous production of fertilizers; the Department informed that Government mandated revival of Talcher unit of M/s FCIL, through a Joint Venture Company with production capacity of 12.7 LMTPA Urea. It is under execution phase and has achieved an overall physical progress of 67.06 % as on 30th May, 2025.

The under implementation TFL project has been envisaged for utilizing the abundantly available domestic coal for Urea production as it has emerged as the best possible option since the Country is endowed with rich reserves of coal. On completion of the project, the production of urea in the Country will increase by 12.7 LMTPA and will assist in maximizing the indigenous production of Urea and provide security in feedstock supply as coal would be sourced domestically and providing alternate route of urea production to diversify the feedstock risk in the sector. The decision on revival of other units of FCIL and HFCL would be taken based on the demand supply gap of urea and viability of the project.

44. As the Coal gasification technology is stated to be environment friendly and cheaper; in this regard, when asked to specify as to whether the Ministry has any plans for transforming the fertilizer industries into coal gasification and revive old units with the technology to bring down dependence on natural gas; a representative of the Department submitted as under:

> *"Definitely, Sir. We will be most interested to do it once our first plant, that is Talcher Fertilizer Limited, it is totally on coal gasification for the first time in India. The moment it becomes operational with the technology that we are importing because we do not have the technology. Once that is operational, then we can have all new plants in our orbit to actually go into coal gasification. It is so cheap and it eliminates import, thereby conserving the foreign exchange also. So, it has lots of positives and we have one billion tons of coal, according to my information, low quality coal. Low quality coal is good enough to give us the gas and it has many potentials for the downstream industry also. But at this moment, we do not know."*

(C) Introduction and promotion of new varieties of indigenous fertilizers.

45. The Committee have been informed that Potash Derived from Molasses (PDM), a potassium rich fertilizer derived from ash in molasses-based distilleries is aby-product of sugar-based ethanol industry. These distilleries produce a waste chemical called spent wash during production of ethanol which is burnt in Incineration Boiler (IB) generating Ash to achieve Zero Liquid Discharge (ZLD). The potash-rich ash can be processed to produce PDM having 14.5% potash content and is used by farmers in field as an alternative to MOP (Muriate of Potash with 60% potash content). Currently, potash as a fertilizer is totally imported in the form of MOP. Therefore, domestically produced PDM will reduce import dependency. Presently about 5 LMT of Potash Ash generated from ethanol distilleries is being sold domestically whereas the current potential to produce this is about 10-12 LMT.

46. It has further been informed that PDM can supplement/reduce the requirement of MOP in our Country. Considering the K_2O content in PDM (14.5%) and MOP (60%) which is approximately in the ratio of 1:4. Technically, therefore, 4 bags of PDM or lesser no. may be required per hectare as compared to one bag of MOP for providing equivalent potash to the

soil and getting the similar yield.

47. As Potash Derived from Molasses (PDM) is 100% domestically manufactured, therefore, on being asked about the policies to further boost its production so as to reduce import of Potash; the Department informed that PDM has been notified under the Nutrient Based Subsidy (NBS) scheme w.e.f. 13.10.2021 and till date, six units have been inducted under NBS scheme for PDM. To boost the production of PDM and make it amply available to the farmers, Government has constituted a Joint Working Group of representatives from D/o Food and Public Distribution,& D/o Fertilizers to resolve the issues of quality and price. A suggestive price of Rs. 4263/Ton *(inclusive of bagging, loading and taxation)* of PDM has been fixed which has been agreed by Indian Sugar Mills Association (ISMA) as well as Fertilizer Companies. Moreover, Workshops were conducted by DoF for sugar units to familiarize sugar mills/distilleries with NBS subsidy claiming process under iFMS. The Government is also encouraging promotion of PDM through regular publicity campaigns across various media platforms. As a result of sustained efforts for promotion, sales of PDM stood at 3.03 LMT during 2023-24 and 3.91 LMT in 2024-25. In ongoing FY-2025-26, 45831.55 MTs PDM sales has been registered till 31.05.2025.

48. In this regard, a representative of the Department of Fertilizers informed the Committee that presently Eleven big fertilizer companies/ Cooperatives have stated sourcing the Molasses from the Sugar Mills and are producing granulated PDM on commercial scale. Since it is Biotic, the Potash content easily dissolves in the soil.

49. Further, Sulphur Coated Urea with the name of “Urea Gold” was launched during 2023-24. It has been decided to keep the cost of 40Kg bag of Urea Gold exactly similar to cost of 45 Kg bag of Neem Coated Urea. During 2024-25, a total 26,085 MT of Urea Gold was produced in the Country. In addition to providing Sulphur, Urea Gold will also promote Nutrient Use Efficiency, and as a result it has potential to decrease Urea consumption to some extent and is expected to result in reduction of import dependence.

50. The Committee have been further informed that, all Urea manufacturing companies were requested to explore the feasibility of starting production of Sulphur Coated Urea (SCU) vide DoF’s letter dated 6th September 2023. Consequently, RCF-Trombay has commenced SCU production from October, 2023 and NFL-Panipat from July, 2024. The total production of SCU in FY 2024-25 (till 31.01.2025) was 20,947 MTs and total sales was 16,154 MTs.

51. Moreover, Single Super Phosphate (SSP) fertilizer is indigenously manufactured in the Country and provides Phosphorus and Sulphur nutrients to the soil. In this regard, when asked about the long-term plans of the GoI regarding the continuance of freight subsidy on SSP without binding on the quantity produced, so as to promote its production and make it sufficiently available to the farmers as a replacement to DAP which is largely imported; the Department in its written reply stated that Freight subsidy on SSP has been approved on pilot basis from Kharif, 2022 and has been granted to the SSP manufacturing units based on guidelines dated 01.09.2022 on the basis of monthly supply plan issued to the companies. SSP being an indigenously produced fertilizer would be encouraged as per approvals.

(i) Nano fertilizers.

52. On being asked about the advancements made in the field of Nano Fertilizers and study about its effectiveness on plant growth and production, the Department in its written reply informed as under:

"Nano Fertilizers hold great promise for application in plant nourishment because of the size-dependent qualities, high surface-volume ratio and unique optical properties. Nano Fertilizers viz Nano Urea & Nano DAP, which are available in bottles are at cheaper prices than conventional Urea & DAP.

The Department of Agriculture & Farmers Welfare (DA&FW) has provisionally notified Nano Urea as Nano Nitrogen Fertilizers under the Fertilizer Control Order (FCO), 1985, based on bio-efficacy trials conducted at multiple locations by Indian Council of Agricultural Research (ICAR) institutions and State Agricultural Universities (SAUs), along with bio-safety test results. These trials, conducted on crops such as paddy, wheat, mustard, maize, tomato, cabbage, cucumber, capsicum, and onion across different agro-climatic zones, demonstrated that two foliar sprays of Nano Urea, when applied as a top dressing along with the recommended basal dose of nitrogen, resulted in comparable yields to those obtained with a full recommended nitrogen dose. This led to a yield advantage of 3-8% and a urea saving of 25-50% in various crops.

….. An MoU was signed on 5th March, 2024 between National Productivity Council (NPC) of India and Department of Fertilizers to undertake the study of Nano Urea so that its efficacy, impact and potential to replace the conventional Urea can be ascertained. Further, ICAR is conducting a study to evaluate the impact of Nano Urea and DAP on crop growth, soil health, and nutrient uptake across various agro-ecological zones in India.

ICAR is undertaking the project titled "Effect of Nano Urea and DAP and Popularization of Its Use in Crop Production" which has been approved by ICFFTR, during the period from 2024 to 2026, at a cost of Rs.160 lakh to evaluate the impact of Nano Urea and DAP on crop growth, soil health, and nutrient uptake across various agro-ecological zones in India. According to the studies undertaken, a single 500ml bottle of Nano Urea can replace an entire 45kg bag of conventional urea, significantly reducing transportation and handling costs. It helps farmers lower input costs by 20-25% while maintaining or even enhancing crop productivity.

Cost analysis studies have further shown that while the initial price of nano fertilizers may be higher than subsidized conventional fertilizers like urea, but ultimately they are more cost-effective due to better nutrient uptake and reduced wastage, leading to higher crop yields with lower overall fertilizer usage. Economic benefits of nano fertilizers application have to be seen in terms of extra yield achieved along with reduction in fertilizer usage as well as direct – indirect benefits in terms of reduction of soil-air-water pollution level."

53. When further asked about the different varieties of Nano fertilizers (both Urea and P&K) developed in the Country and their efficacy compared to conventional fertilizer, the Department stated as under:

"As per the information received from Fertilizer Companies, so far only Nano

Urea and Nano DAP are being commercially produced.

The Government of India has notified the specifications of Nano Nitrogen under the Fertilizer Control Order (FCO), 1985. IFFCO's Nano Urea containing 4% nitrogen was the first to be notified on 24th February 2021. Subsequently, Nano Urea products with varying nitrogen content were approved, including Nano Urea (8%) by Zuari Farm Hub Ltd. on 2nd March 2023, Nano Urea (4.4%) by Ray Nano & Research Centre, and the most recent Nano Urea Plus (16%) by IFFCO, notified by the Department of Agriculture & Farmers Welfare (DA&FW) on 15th April 2024 (S.O. 1718(E)).

As of 31st May 2025, a total of 13.27 crore bottles (500 ml each) of Nano Urea have been produced, which is approximately equivalent to 60.32 lakh metric tons of conventional urea.

In the case of Nano DAP, DA&FW, through Notifications S.O. 1025(E) and 1026(E) dated 2nd March 2023, authorized IFFCO and CIL to manufacture Nano DAP for a period of three years. As per the Indian Council of Agricultural Research (ICAR), preliminary field trials conducted on select crops at ICAR institutes indicated that Nano DAP, when used as a seed treatment and foliar spray, can significantly reduce the requirement for conventional granular DAP.

Furthermore, Nano DAP developed by Zuari Farm Hub Ltd. has been notified under the FCO through Gazette Notification dated 29th November 2023 (S.O. 5077(E)).

As of 31st May 2025, around 3.19 crore bottles (500 ml each) of Nano DAP have been sold, equivalent to approximately 15.97 lakh metric tons of conventional DAP.

54. Regarding the prices of Nano Urea /Nano DAP and subsidy component, if any, the Department further informed as under**:**

"The price of Nano Urea and Nano DAP (Company- wise) is as below:

MRP of Nano Urea		
Sr. No	**Company Name**	**MRP per bottle**
1	Indian Farmers Fertilizers Cooperative Limited	Rs 225 per 500 ml bottle
2	Ray Nano Science & Research Centre	Rs 225 per 500 ml bottle
3	Meghmani Crop Nutrition Limited	Rs 225 per 500 ml bottle
4	Zuari Farm Hub Ltd	Rs 265 per 500 ml bottle
5	Coromandel International Limited	Rs 325 per 500 ml bottle

MRP of Nano DAP		
Sr. No.	**Company Name**	**MRP per bottle**
1	Indian Farmers Fertilizers Cooperative Limited	Rs 600 per 500 ml bottle
2	Coromandel International Limited	Rs 600 per 1 litre bottle
3	Zuari Farm Hub Limited	Rs 625 per 500 ml bottle

At present, there is no subsidy component in Nano Fertilizers."

55. When asked about the merits and demerits of use of Nano fertilizers in terms of crop productivity, nutritional quality of crop produced, soil health, etc.; compared to the use of conventional fertilizers based on its user trials/ research; the Department in its written reply informed as under:

> "As per the study undertaken by National Productivity Council (NPC) of India during 2024 for "Evaluating efficacy, utility and impact of Nano Urea in comparison to Conventional Urea" in various States its provisional findings on use of Nano Urea are as under:
>
> i) Percentage increase in yield for combined application of conventional urea (basal dose) and nano urea (foliar application) as compared to conventional urea alone is 1.65-14.82% depending upon the crop based on feedback from farmers.
>
> ii) The crop growth is better if seed treatment is done with Nano DAP.
>
> iii) Conventional urea harms the population of earthworms which are beneficial for the health of soil and the crops. Hence conventional urea may be used to a minimum extent and the use of nano urea has to be promoted for better soil and crop health.
>
> iv) Nano urea does not degrade soil health as it is applied as a foliar application.
>
> v) Study has found Average increase in farmer's income based on combined application of Nano Urea and Conventional urea as compared to Conventional urea alone.

56. On being asked about the present production capacity and future plans to scale up production of different varieties of Nano fertilizers as replacement to conventional Urea/ P&K fertilizers over the years and the extent to which it may contribute to attaining self-sufficiency in fertilizers sector, the Department in its written reply informed as under:

> "*As per the information provided by the Fertilizer Companies, the present production capacity of Nano Urea and Nano DAP Plants are as below:*

S No	**Location**	**Capacity Addition in Crore Bottles of 500 ml each.**	**Start of Production**	**FCO notification dated and Nano Urea (along with % of Nutrients)**
1	IFFCO Kalol Gujarat	5.0	August, 2021	24th February, 2021 – N (1% - 5 %) ; 11th March, 2024 - N (1 % -5 %) ; 15th April, 2024 – N (16%)
2	IFFCO Phulpur	6.0	January, 2023	
3	IFFCO Aonla	6.0	January, 2023	
4	Ray Nano Science & Research Centre	4.50	December, 2023	3rd March, 2023 – N (1% - 5 %)

5	Meghmani Crop Nutrition Ltd	5.00	February, 2024	Signed MoU with IFFCO for Technology Transfer
6	Zuari Farm Hub Ltd Bathinda	0.12	June, 2024	29th November, 2023 – N (8 %)
7	Coromandel International Ltd	0.60	September, 2024	22nd April, 202 4 – N (10 % -12%)
Total		**22 Crore Bottles Per Year (equivalent to 123.73 lakh tons (approx.) of conventional urea)**		

The upcoming Nano Fertilizers plants are as under:

S. No.	Nano plant Location	Capacity Addition in lakhs Bottles of 500 ml each.	Start of Production
1	IFFCO Bengaluru (Nano Urea & Nano DAP)	600 (#)	2025
2	IFFCO Deoghar (Nano Urea & Nano DAP)	600 (#)	2026
3	RCF Trombay (Nano Urea)	500	2026

The expected reduction in requirement of conventional Urea/ P&K fertilizers due to use/application of Nano fertilizers cannot be ascertained at this point of time."

57. During the oral evidence, a representative of the Department informed the Committee that Nano Urea is rising as a very important supplement of the chemical fertilizer. During the last 2 ½ years, 9 crore 32 lakh bottles of Nano Urea have been sold which is equivalent to 42 lakh tonnes of conventional Urea. Similarly, Nano DAP has found excellent acceptance by the farmers. By the end of 2024, more than 3 crore bottles of Nano DAP have been produced and out of them 2.16 crore bottles have been sold which is equivalent to 10.82 LMT of conventional DAP which would have been imported. The difference in price is actually alluring and it is very promising for the farmers because one bag of DAP costs Rs. 1,350 but one bottle of Nano DAP costs only Rs. 600. So, it is half of the cost. Two plants with 12 crore bottles capacity are coming up in 2025-2026 and our PSUs are also entering into the field. Moreover, the production of Nano fertilizers requires very little of raw material because of its Nano size.

58. When further asked about the initiatives taken by the Ministry to facilitate technology transfer for production of Nano fertilizers to other fertilizer PSUs/ Cooperatives/Private sector entities so as to boost its indigenous production capacity; it has been informed that two Central Public Sector Undertaking (CPSU) namely National Fertilizers Limited (NFL) and Rashtriya Chemicals and Fertilizers Limited (RCF), under administrative control of Department of Fertilizers, have signed Non-Disclosure Agreement (NDA) & Memorandum of Understanding (MoU) with Indian Farmers Fertilizer Cooperative (IFFCO) to transfer the technology of Nano Urea from IFFCO.

59. As the liquid Nano fertilizers have to be applied on crops through spray, when asked

about the different schemes of the Government so as to provide/ make available sufficient number of agricultural drones/ other sprayers to the farmers at subsidized/ convenient rates in each village/ Block level so as to facilitate the farmers to switch over to its use; it has been informed that to facilitate the effective application and utilization of Nano fertilizers such as Nano Urea through foliar spraying, various initiatives have been undertaken which include the promotion of innovative spraying solutions like 'Kisan Drones' and the distribution of battery-operated sprayers at retail outlets. Moreover, pilot training and custom hiring services through Village Level Entrepreneurs (VLEs) are being actively encouraged to support last-mile delivery. It has further been informed that the Department of Agriculture & Farmers Welfare (DA&FW) is implementing the Namo Drone Didi Scheme, a Central Sector initiative approved by the Cabinet which aims to provide 15,000 drones to Women Self Help Groups (SHGs) over a three-year period (2023–24 to 2025–26).Supporting this initiative, the Department of Fertilizers, through fertilizer companies, has facilitated the distribution of 1,094 drones to SHGs under the Namo Drone Didi Scheme. Of these, 500 drones have been distributed as part of a pilot initiative. So far, 909 Drone Didi's have actively deployed these drones for spraying nano fertilizers.

60. About the measures being taken by the Ministry to popularize the features/ benefits/ mode of application, etc. for use of Nano fertilizers amongst the farmers throughout the Country, the Department in its written reply has stated that in order to promote the use of Nano Fertilizers amongst the farmers in rural areas, the Government of India has pursued with the States on use of Nano fertilizer at various forums. DA&FW during the Rabi, 2024-25 season assessed the requirement of Nano Urea and Nano DAP. Use of Nano Urea is promoted through different activities such as awareness camps, webinars, Nukkad-Nataks, field demonstrations, Kisan Sammelans and films in regional languages etc. Moreover, Nano Urea and Nano DAP are made available at Pradhan Mantri Kisan Samridhi Kendras (PMKSKs) by concerned companies. Further, Nano Urea has been included under monthly supply plan issued by Department of Fertilizers, regularly. DoF in collaboration with fertilizer companies has initiated a Maha Abhiyan for adoption of Nano DAP in all 15 agro-climatic zones of the Country through consultations and field level demonstrations.

61. When asked about the Budgetary provisions made/ proposed to support the fertilizer PSUs in the production of Nano fertilizers and also incentivize the farmers through subsidy, etc. to use it conveniently, the Department in its written reply informed as under:

> "*There are no budgetary provisions made/ proposed for the fertilizer PSUs in the production of Nano fertilizers*."

ii) Promotion of production and use of Organic & bio-fertilizers.

62. On being asked about the steps being taken to make fertilizer production more environmentally sustainable in India, the Department in its written reply has stated that two new additional components have also been introduced along with the Urea subsidy scheme from 2023-24, with a view to save the health of soil by way of promoting natural farming, balanced/sustainable use of chemical fertilizers, reducing the use of chemical fertilizers and proactively promote alternate fertilizers, which are a) PM Programme for Restoration, awareness Generation, Nourishment and Amelioration of Mother Earth (PMPRANAM) and

b) Market Development Assistance (MDA) to promote organic Fertilizers.

63. Government has approved Market Development Assistance to promote organic fertilizers produced at plants under the umbrella GOBARdhan initiative covering different Biogas/ CBG support schemes/ programs to promote sale of soil organic Carbon enhancers like Fermented Organic Manure (FOM), Liquid Fermented Organic Manure (LFOM) and Phosphate rich FOM, etc. In this regard, when asked about the budgetary provisions made and outcomes of the scheme and its future prospects over the years, the Department informed that the policy on promotion of organic fertilizers is a new scheme approved by the CCEA in its meeting held on 28th June, 2023 wherein MDA @ Rs.1500/MT has been provided to promote organic fertilizers 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. Total sale of FOM/LFOM/PROM is continuously increasing during the period. Fertilizers Marketing Companies have been trying to increase the awareness of FOM/LFOM/PROM amongst farmers. The exercise is underway for evaluation of the scheme for extension beyond 31.3.2026. These initiatives of the Government are expected to address the imbalanced use of chemical fertilizers and improve soil health by encouraging use of soil carbon enhancers.

64. Regarding the steps taken to promote/ incentivize the production and use of Organic and alternative fertilizers throughout the Country; the Department in its written reply stated that to promote use of organic fertilizers in the Country, Government is promoting organic farming through the scheme of Paramparagat Krishi Vikas Yojana (PKVY) in all the States/UTs (except North Eastern States). For North Eastern States, 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 processing, certification & marketing and post-harvest management training and capacity building. Under MOVCDNER, assistance of Rs. 46,500/ha for 3 years is provided for creation of Farmer Producer Organizations, support to farmers for organic inputs, etc.

65. When asked about the difference in results due to use of natural farming and chemical fertilizer farming, the Department in its written reply stated that the adoption of organic farming practices has been evolved from safeguarding the harmful effects on natural resources and health of the soil from mainstream farming practices which have been using chemical fertilizers and pesticides without any bounds in order to increase the productivity. MOVCDNER also takes into its ambit creation of awareness among the farmers and the consumers the positive aspects linked with organic farming and the associated environmental benefits which come along. Further, Indian Council of Agricultural Research studies on yield and soil health impact of organic farming that most of the studies report lower crop yields with organic management vis-à-vis conventional management and the subsequent improvement over the years of adoption of organic farming. However, organic farming performed better than natural farming. Soil with organic farming practices has higher biotic abundance, biotic richness and soil carbon.

66. On being asked about the measures taken to restrict the excessive use of fertilizers in crop production, the Department in its written reply informed that 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 and R&D relating to agricultural infrastructure and increase in the yield. The remaining 50% of the subsidy is retained by Government of India. The Department is also actively working on promoting MDA scheme resulting in release of MDA to the tune of Rs. 17.74 Crore till date in FY 2024-25. Further, Rs. 4.81 Crore have been utilized as R&D fund so far. These initiatives of the Government are expected to address the imbalanced use of chemical fertilizers thereby reducing chemical fertilizer use.

67. The Committee has further been informed that Market Development Assistance (MDA) @ 1500/M.T. is provided to promote soil enhancer produced by CBG/BG plants under GOBARdhan initiatives. As on date, 93 plants have been registered for sale of FOM/LFOM/PROM in iFMS portal.

D) Promotion of Research & Development in fertilizers - Need for sufficient Budgetary allocation/ support.

68. On being asked to furnish the details of the R&D activities sponsored/ facilitated by the Ministry through its PSUs, institutions, etc. for introduction of new efficient fertilizer varieties and technologies in the Country and annual budgetary allocation for R&D in fertilizers during the last 05 years, and outcomes thereto; the Department in its written reply informed that to promote and facilitate research and development in the field of fertilizers, the Department of Fertilizers has established a dedicated national-level think tank, Indian Council for Fertilizers and Fertilizer Technology Research (ICFFTR). The ICFFTR is funded by the member companies, mostly PSUs. Under this endeavor, RCF has actively contributed by successfully developing and commercializing two innovative fertilizers i.e., Organic Fertilizer (PROM) and Bio-stimulant fertilizer. The products developed are eco-friendly and align with the Government's emphasis on sustainable agricultural practices. Moreover, NFL is setting up Sulphur Coated Urea (Gold Urea) plant having annual capacity of 5000 MT at its Panipat and Nangal Units under R&D Project.

69. In this regard, informing about the ongoing and planned R&D activities being facilitated in the field of fertilizers, for developing more efficient and cost-effective fertilizers including various varieties of Nano fertilizers, bio-fertilizers, organic fertilizers, etc. the Department, further informed that Indian Council of Agriculture Research (ICAR), research institutes (20), KVKs (30) and State Agricultural Universities (25) have carried out Nano Urea (liquid) and Nano DAP trials on different crops (> 20 crops) covering 15 agro-climatic zones. Impact of nano urea varies with the crops. On an average it saved upto 8-12 % fertilizer nitrogen along with recommended package of practices.

70. During the Evidence, the Committee expressed their concern about the non-availability

of fertilizer raw materials in the Country, and stressed the need for R&D in the sector so that indigenous alternative materials could be used. To this, a representative of the Department responded in affirmative.

E) Technology for fertilizer manufacturing industry

71. During the evidence, a representative of the Department informed the Committee that, 'despite having such a long career of engineers and managers in Urea plants, we still depend upon foreign companies for the basic license of running, repairing and making the plant. Everything is in the hands of the licensor'. In this regard, when asked about the reasons due to which the Country could not develop the technical know-how and technology for fertilizer manufacturing industry over the years, the Department in its written reply informed as under:

> *"The indigenous 'Chemical Process Technology Development for fertilizers' encompasses various stages, from initial laboratory research to pilot testing to scale up and finally full-scale plant operation, often involving iterative cycles of refinement & scale-up. It involves a massive investment in R&D in the field of synchronized pipe-based technology based on advance metallurgy, design, and fabrication all connected to overall objective to achieve better energy efficiency to minimize production costs. This integrated approach requires multiple institutional participation as Individual companies on their own may not be suitable to develop end-to-end solution having competitive advantage and energy savings. However, the time has come to ensure a proper ecosystem with the help of relevant institution to develop a process technology for urea and complex fertilizers."*

72. In this context, when further asked to explain the position, a representative of the Department submitted as under:

> *"Sir, there is a process by which urea is made. That process is licensed by certain companies. There are various ways of slight differences in how to make urea. If I am not wrong, four companies have the license to give us the means to make urea, and we have to pay for that license. …..These companies are from the Netherlands, the US, Italy and Japan. So, what I have requested now is that we should have a task force."*

IV. Fertilizer Subsidy Policy – A review.

A) Urea Subsidy Scheme.

73. Urea Subsidy Scheme which is a Central Sector Scheme of the Ministry of Chemicals & Fertilizers is wholly financed by the Government of India through Budgetary Support. Urea Subsidy Scheme has three components, i.e., Indigenous Urea, Imported Urea and Uniform Freight Subsidy. Indigenous urea subsidy is administered to the urea units towards indigenous urea production. Imported Urea subsidy is directed towards imports made to bridge the gap between assessed demand and indigenous production of urea in the Country. Both components also include freight subsidy for movement of urea across the Country under the

Uniform Freight Subsidy Policy.

74. The objectives of Urea Subsidy Scheme are as follows:

i. To ensure timely availability of adequate quantity of urea at statutory controlled price to the farmers across the Country.
ii. To optimize indigenous urea production.
iii. To rationalize the subsidy outgo of the Government.
iv. To enable urea units in sustaining their operations and energy efficiency.
v. To fill up the gap between assessed demand and estimated production through imports.

75. Under Urea Subsidy Scheme, Urea is presently provided to the farmers at a statutorily notified Maximum Retail Price (MRP)of Rs.242 per bag of 45 kg urea (exclusive of charges towards neem coating and taxes as applicable). Accordingly, all farmers of the Country are being supplied urea at the subsidized rates and thereby are beneficiaries of this scheme.

76. When asked to provide a gist of the Third-party evaluation got conducted by the Ministry regarding the need for continuance of Urea Subsidy Scheme and action taken thereon, the Department in its reply has stated that M/s Centre for Market Research & Social Development Pvt. Ltd. (CMSD) conducted the study during the year 2020. As per the Report, due to the scheme under New Urea Policy 2015 (NUP-2015), the production of urea increased from 225.8 LMT in 2014-15 to 244.75 LMT in 2015-16. Moreover, after the implementation of NUP-2015, there is improvement in Energy efficiency of urea industries at par with global standards. The study observed that urea subsidy scheme has increased crop yield and reduced the expenditure of farmers for cultivation and 50% farmers are using less amount of urea in cultivation. The study recommended that five manufacturing units under Public sector viz. Ramagundam, Talcher, Sindri, Gorakhpur and Barauni be commissioned within the stipulated time period so as to attain self-sufficiency. Thus, there is the necessity for continuation of the urea subsidy scheme to help the urea industries, farmers, and the agriculture sector. Accordingly, a proposal for continuation of Urea Subsidy Scheme was placed for the appraisal of Expenditure Finance Committee (EFC) to continue the scheme till 31st March 2025. For review the continuation of Urea Subsidy Scheme beyond 31.03.2025, the evaluation on the same is under consideration in the Department.

B) Nutrient Based Subsidy policy – P&K fertilizers

77. On being asked about the salient features, aims and objectives of Nutrient Based Subsidy (NBS) Policy, it has been informed that the Government has implemented Nutrient Based Subsidy (NBS) Policy w.e.f. 01.04.2010 for Phosphatic and Potassic (P&K) fertilizers. Under the policy, a fixed amount of subsidy, decided on annual/bi-annual basis, is provided to manufacturer/ importer on notified P&K fertilizers depending on their nutrient content i.e. Nitrogen (N), Phosphorus (P), Potassium (K) and Sulphur (S) to improve availability of fertilizers to farmers. As a result of steps taken by the Government, production of DAP has increased to 37.69 LMT in 2024-25. Similarly, the production of NPKs has increased from 89.98 LMT in 2018-19 to 113.28 LMT in 2024-25 by 22 P&K fertilizer manufacturing units and production of SSP has increased from 40.72 LMT in 2018-19 to 52.44 LMT in 2024-25 by

104 SSP manufacturing units.

The main objectives of NBS Scheme are as under:

i. To promote balanced use of fertilizers.
ii. To rationalize impact of subsidy on the Government.
iii. To improve availability of fertilizers to farmers.
iv. To encourage competition among fertilizer companies.

78. The Department has informed that a Third-party evaluation of the Nutrient Based Subsidy scheme was got conducted by M/s SANTEK on impact of NBS policy in 2020.It has shown that use of Phosphatic & Potassic (P&K) fertilizers helped in improving productivity in the farm land and multi-nutrient deficiency of the soil. The consumption of NPK fertilizers rose from 281.22 LMT in 2010-11 to 290.39 LMT in 2019-20. As per the Report, there is a substantial increase in production of major crops since inception of NBS scheme. Food grain yield per hectare increased from 1930 Kg/hectare in 2010-11 to 2233 Kg/hectare in 2017-18, an increase of 16% over a period of 7 years.

79. During the evidence, the Committee expressed its concern to the import of only 19.7 LMT of P&K fertilizers against the targeted import of 30 LMT during the year by the companies under Open General License, due to their financial compulsions'. The Committee therefore, desired to know about the remedial measures taken to overcome such emergent situations and actions taken thereto, as the shortage of DAP inter-alia led to its black marketing in the Country.

80. In this regard, when asked if the Government envisage reviewing its fertilizer subsidy policy through introduction of similar subsidy scheme for P&K fertilizers as in case of Urea so as to cushion the effect due to international price fluctuations, etc. and ensure adequate and timely availability of P&K fertilizers to the farmers at affordable prices, which may encourage balanced use of N:P:K in the Country, the Department informed that under the NBS policy, MRP is fixed by fertilizer companies as per market dynamics at reasonable level which is monitored by the Government. In view of price volatility in international prices of key fertilizers and raw materials, the Government subsumes fluctuations, if any, while fixing NBS rates for P&K fertilizers bi-annually and the subsidy is made applicable uniformly across all stakeholders i.e. importers/ manufacturers.

V. Way forward - Efforts for self-sufficiency in Fertilizers/ Raw material.

A) Urea/ P&K Fertilizers/ RLNG.

81. During the evidence, informing about the limitations of the Country due to dependence on import of fertilizers and raw materials, a representative of the Department submitted before the Committee as under:

"Sir, I have already mentioned these figures about the non-availability of raw material that shows how much planning is to be done to bring a non-volatile availability at a price that is competitive. The global market is now suffering for the last one-and-a-half years due to geopolitical events, fluctuating crude oil and natural gas prices, and international

trade policies and sanctions. These things actually influence us on a day-to-day basis regarding how the shifts are coming. But this has not abated. It has become a factor. We have the plant utilization deficiency because of this disruption."

82. In this context, a representative of the Department informed the Committee that the raw material for production of urea or the feedstock is basically Natural Gas, which constitutes 90 percent of the cost of Urea. The remaining 10 percent is the cost like bagging cost, water cost, fixed cost, etc. Therefore, the price of natural gas is very important for us. We ensure that the required gas is imported through long-term agreements. All the 33 plants operating presently for the production of urea are Natural Gas based. Out of the total requirement, 74 per cent of the gas is imported through long-term agreements and the remaining 26 per cent of the gas we get from the domestic sources which is cheaper. Since the gas market depends upon a lot of geopolitical factors, international relations, etc. volatility of gas price affects the cost of production of Urea.

83. On being asked about the steps being taken to ensure constant and interrupted supply of natural gas including other raw materials used in fertilizer production and for exploration of oil and natural gas reserves within the Country, the Department informed that it has been actively engaged in exploring possibility of signing long term agreements between Indian Fertilizer companies and companies of other resource rich countries for ensuring constant and uninterrupted supply of raw materials used in fertilizer production.

84. In this context, it has been added that the Department of Fertilizers consistently promotes and facilitates establishment of new long/ medium term agreements and joint venture projects abroad in countries rich in fertilizer resources with buy back agreements between Indian fertilizer companies and foreign suppliers. Indian fertilizer companies have also entered into joint venture collaborations with foreign entities for the production and procurement of fertilizers/ raw materials in the Country.

85. During the course of evidence, a representative of the Department, informed the Committee through power point presentation regarding the concrete steps being taken through new units & capacity enhancement initiatives in the P&K Sector, which is as under:

Organization	Project Name	Capacity	Cost (₹ Cr)	Status	Expected Completion
HURL	Ammonium Sulphate – Barauni	450 MTPD	85	Feasibility study completed	Dec 2026
	NPK Plant – Sindri	1000–1200 MTPD	1000	Consultant appointment ongoing	Mar 2028
PPL	Phosphoric Acid Plant-II Revamp	Expand to 400 MTPD	300	CTE in place, feasibility ongoing	H1 FY27
	Sulphuric Acid Plant	1500 MTPD	500	Under construction	H1 FY26
	New Phosphoric Acid Plant	1000 MTPD	800	Environmental clearance pending	H1 FY29
	New Sulphuric Acid Plant	3000 MTPD	1000	Planning phase	H1 FY29
	Infrastructure Augmentation	—	400	Work in progress	FY26 onwards
CFCL	Phosphoric Acid	4.9 → 6.9 LMT/yr	1500	To be operational	Early 2027

	Expansion (Morocco)				
	Sulfuric Acid Plant Expansion	—	—	Feasibility in progress	—
RCF	NPK Plant – Thal	1200 MTPD	1000.27	Work order awarded	Jan 2027
	NPK Plant – Cochin	1650 MTPD	411	Under construction	End of 2025
	Energy & Capacity Improvement (Ammonia)	—	140	Under planning	+24 months
FACT	Sulphuric Acid Plant Expansion	—	600	Under planning	+36 months
IFFCO	Nano NPK Granule Units (Kandla, Paradeep)	—	—	Planning stage	—
CIL	NPK Plant – Kakinada	7.5 LMT	—	Setup in progress	—

86. In this regard, the Committee has been informed that there has been record production of fertilizers during the FY, 2024-25. Elaborating in this regard, it was submitted that the production of P&K fertilizers (NPKS + DAP) has increased from 138.28 LMT in 2020-21 to 158.78 LMT in 2024-25; which is a record. The SSP production has increased from 49.35 LMT to 52.44 LMT during the period. The total overall domestic production of fertilizers (Urea + P&K + SSP) has increased to 517.89 LMT which is the highest ever.

B) Explore availability of raw materials in the Country.

87. When asked regarding the steps taken, for exploration of raw materials for fertilizers the Department in its written reply informed that the Country is import dependent in raw materials of both Phosphatic and Potassic fertilizers. India has relatively low reserves of economically extractable potash and phosphate rock compared to global standards. Most of the Country's rock phosphate is low grade which requires benefaction before use.

88. In case of Rock Phosphate, as informed by Indian Bureau of Mines, M/o Mines has informed that there are 7 mining leases of Rock Phosphate out of which only 6 are working. In all 6 mines, mining is done through opencast method i.e. conventional mining for comparatively shallow deposits. In case of potash, the potash blocks in India are deep seated for which 2 methods could be used – conventional underground mining and solution mining.

89. Ministry of Mines with an objective of increasing production of fertilizer minerals under 'Critical and Strategic Minerals' category, has included Phosphate, Potash and Glauconite (Potassic mineral) under "The Mines & Minerals (Development and Regulation) Amendment (MMDR) Act, 2023". It aims to enhance domestic production and achieve self- sufficiency in critical minerals to ensure that critical minerals are produced, processed, and recycled by catalyzing investments from governments and the private sector across the full value chain, emphasizing the importance of sustainable and responsible mineral management practices. M/o Mines has further established National Critical Mineral Mission (NCCM) on 29.01.2025.

90. In this context, about securing mining lease agreements in raw material rich countries, it has been informed that the Department of Fertilizers supports and facilitates Indian fertilizer

companies for exploring the opportunities of entering into mining lease agreement with the raw material rich countries for extraction for refining / manufacturing of fertilizers.

C) Strengthen the Fertilizers distribution system.

91. On being asked regarding the efficacy of its Fertilizer Monitoring System (FMS) and integrated Fertilizer Management System (iFMS) and plans to strengthen the same to prevent pilferage and assure its timely supply to the farmers, the Department in its written reply stated that the Integrated Fertilizer Management System (iFMS) is a comprehensive, all-integrated system covering all functionalities in the fertilizer supply chain. This system covers the entire supply chain, meticulously capturing transactional data from raw material procurement, imports to fertilizer production and transportation via rail or road from plants, rake houses, ports to district warehouses, and finally sale at PoS enabled retailers. Everything is aligned with monthly supply plans at district level and the movement of fertilizers is being captured in real time. Various modules under iFMS have been developed to ensure capture and maintain the fertilizers movement and sale data accurately in a secured manner.

92. In this context, the Department further informed that the following steps are taken by the Government every season for ensuring timely and adequate availability of fertilizers to the farmers in the Country:

i. Before the commencement of each cropping season, Department of Agriculture and Farmers Welfare (DA&FW), in consultation with all the State Governments, assesses the state-wise & month-wise requirement of fertilizers viz. Urea, DAP, MOP and NPKS.

ii. On the basis of this requirement, Department of Fertilizers allocates adequate quantities of fertilizers to States by issuing monthly supply plan and continuously monitors the availability.

iv. The movement of all major subsidized fertilizers is monitored throughout the Country by an on-line web-based monitoring system called integrated Fertilizer Monitoring System (iFMS);

v. Regular Weekly Video Conference is conducted jointly by DA&FW and D/o Fertilizers with State Agriculture Officials and corrective actions are taken to dispatch fertilizers as indicated by the State Governments.

However, the distribution of fertilizers within the State at district level is done by the respective State government.

93. It has been added that, in order to ensure the adequate and timely availability of good

quality of fertilizers to the farmers, Department of Agriculture & Farmers Welfare assess the requirement of major fertilizers, namely Urea, DAP, MOP, complexes and SSP fertilizers, before each cropping season (viz. Rabi and Kharif). INM Division, DA&FW organizes Zonal Conference before each cropping season to assess the requirement in consultation with DOF, State Governments/UTs. Data is sought from the State Governments in the prescribed formats relating to cropped area, Soil Health Status, requirement of Chemical fertilizers on the basis of Soil Health Card Data, requirement and consumption of NPK and chemical fertilizers, Quality control reports of organic and chemical fertilizers, etc. The requirement of fertilizers is assessed taking into account the factors like the projected gross cropped area, irrigated area, last three seasons' consumption pattern and crop wise recommended dose of fertilizers as per soil Health fertility status, etc. The requirement of fertilizers finally assessed is intimated to the States for providing month-wise break up of fertilizer. The assessed requirement and month wise requirement as provided by State Governments is provided well in advance to the Department of Fertilizers to ensure seamless availability of fertilizers. In order to make the appropriate supply plan by DoF, the final month wise assessed requirement is also uploaded by DA&FW in the iFMS portal and the State Governments also upload the final district wise data in the iFMS portal.

94. When asked about the arrangements made for storage of fertilizers, etc. so that sufficient quantity of buffer stock is maintained in all regions/ States of the Country, the Department in its written reply informed that the storage arrangements and capacities in respect of fertilizers are overseen by the respective State Governments and the fertilizer companies. Further, Department of Fertilizers ensures suitable supply of fertilizers in the States through indigenous production as well as imports. As a result, sufficient stocks get pre-positioned in the States before the start of each cropping season.

95. Regarding the reasons for criss-cross allocation/ movement of fertilizers and Natural Gas to far-off State/ regions of the Country, the Department in its reply informed that the Government of India, vide notification dated 24th August, 2022, has decided to implement One Nation One Fertilizers (ONOF) by introducing Single Bharat Brand for Fertilizers and Logo under Fertilizer subsidy scheme namely "Pradhanmantri Bhartiya Janurvarak Pariyojna" (PMBJP). The objective of the scheme is to increase the availability basket of fertilizers; take care of dilemma among farmers in choosing from plethora of brands available in the markets, to reduce the criss-cross movement and further ensure timely supply of fertilizers. Based on the requirement of fertilizers as assessed by DA&FW for various States, DoF issues monthly supply plan for Urea, DAP, MOP and NPK and ensures adequate quantities through indigenous production and imports. While issuing the supply plan, supplies to States are ensured from nearest possible plants/ports as per the available material produced in the plants/ imported at the ports according to the extant guidelines.

D) Promote balanced use of Fertilizers.

96. During the evidence, explaining about the need for use of fertilizers in agriculture, a representative of the Department informed that urea is the most dominant element in fertilizers. To control its over-use, and save the soil, different kinds of biotic inputs, better soil practices, better way of cultivation in the natural application of organic fertilizer have to be

utilized. However, since productivity cannot be compromised because India should have sufficient food, for its huge population and there should also be value addition for the farmer's income, productivity has to be maintained through balanced use of soil nutrients.

97. Regarding the efforts made by the Ministry to promote balanced/ appropriate use of fertilizers in the Country as per crop and soil type, the Department stated that there are no harmful effects of fertilizers on soil fertility, if applied in a balanced and judicious manner. However, indiscriminate and imbalanced use of chemical fertilizers coupled with low addition of organic matter and neglect of micro and secondary nutrients, over the years, may cause multi-nutrient deficiencies and deterioration of soil health. The Government of India is implementing Soil Health & Fertility Scheme since 2014-15. Under the Scheme, the Soil Health Cards are issued to farmers for providing information on fertility status of soils and recommends crop specific dosage of fertilizers, micro-nutrients, and macro-nutrients. Based on the soil health cards generated, advisories are issued to farmers through Agricultural Technology Management Agency (ATMA) and Krishi Vigyan Kendra (KVK). Further, the National Mission on Natural Farming (NMNF) was approved on 25th November 2024 as a centrally sponsored scheme to encourage farmers to promote Natural Farming (NF) across the Country. Natural Farming is a chemical free farming, involving livestock integrated natural farming methods and diversified crop systems. It is aimed towards improving soil health, restoring ecosystems and reducing input cost to the farmer to achieve greater climate resilience through the use of on-farm inputs, multi-cropping systems, Pre-monsoon dry sowing, biomass-based mulching, etc. The scheme envisages the formation of 15,000 NF clusters in 7.5 lakh Ha area in various States/ Union Territories. For easy availability of natural farming inputs to the farmers, 10,000 need-based Bio-Input Resource Centre (BRCs)are envisaged under the Mission.

98. Expressing their concern to the over-use of chemical fertilizers in certain pockets of the Country leading to depletion of soil health, the Committee stressed the need for constituting a task force to organize awareness programs amongst the farmers for soil/ crop specific use of fertilizers.

E) Efforts to stop mal-practices in the sale of Fertilizers.

99. During the evidence, the Committee pointed out that since a huge amount of subsidy is being provided on fertilizers, concrete measures betaken to ensure proper sale/ distribution of fertilizers in the Country to completely stop the mal-practices, at all stages. In response, a representative of the Department informed that Fertilizers are declared as an essential commodity under the Essential Commodities Act, 1955 and notified under Fertilizer Control Order, 1985. State Governments are empowered to take action against persons involved in black-marketing/diversion/smuggling as per provisions of EC Act. Any complaint received at Department of Fertilizers level regarding such cases is sent to concerned State Government to take appropriate action under Essential Commodities Act, 1955 and Fertilizer Control Order, 1985.

100. In this regard, the Committee has further been informed that the quality of fertilizers is governed under the provision of the Fertilizer (Control) Order, 1985. Clause 19 of the Order

strictly prohibits the sale of fertilizers which are not of prescribed standards. The State Governments are the actual enforcement agency and are adequately empowered to enforce the provision of FCO, 1985.

101. When asked about the initiatives taken to ensure sale of fertilizers (Urea/ P&K fertilizers, etc.)at the Retail/ Wholesale points, only after proper biometric authentication through PoS devices, etc.; it has been stated that the Department of Fertilizers vide Circular dated 21.10.2016 notified that under Section 7 of Aadhaar (Targeted Delivery of Financial and other Subsidies, Benefits and Services) Act, 2016, the individuals desirous of availing subsidized Fertilizers are required to furnish proof of possession of Aadhaar authentication or undergo Aadhaar authentication. In December, 2023 on pan India saturation of Aadhaar database for adult population, as per the suggestion of Cabinet Secretariat, the Aadhaar authentication is mandatory in all States and UTs.

102. Replying to the concerns expressed by the Committee regarding steps taken to stop Black marketing and diversion of fertilizers, a representative of the Department informed that as per the provisions of Essential Commodities Act, the States have been empowered to take immediate action in cases of sale of sub-standard fertilizers or its sale above the prescribed price or withholding the stock, etc. The Government has developed a digital tool for effective real-time monitoring of fertilizer movement and sale, throughout the Country.

List of urea units in the Country

Annexure

Sl. No.	NAME OF PLANTS	Location	Reassessed Capacity (MT)	Policy covered under
Public Sector				
1	National Fertilizers Limited (NFL): Nangal	Punjab	478500	New Urea Policy-2015 notified on 25th May, 2015
2	National Fertilizers Limited (NFL): Bhatinda	Punjab	511500	New Urea Policy-2015 notified on 25th May, 2015
3	National Fertilizers Limited (NFL): Panipat	Haryana	511500	New Urea Policy-2015 notified on 25th May, 2015
4	National Fertilizers Limited (NFL): Vijaipur-I	Madhya Pradesh	864600	New Urea Policy-2015 notified on 25th May, 2015
5	National Fertilizers Limited (NFL): Vijaipur -II	Madhya Pradesh	864600	New Urea Policy-2015 notified on 25th May, 2015
6	Rashtriya Chemicals & Fertilizers Limited (RCF):Trombay-V	Maharashtra	330000	New Urea Policy-2015 notified on 25th May, 2015
7	Rashtriya Chemicals & Fertilizers Limited (RCF):Thal	Maharashtra	1706897	New Urea Policy-2015 notified on 25th May, 2015
8	Madras Fertilizers Limited (MFL)-Manali	Tamil Nadu	486750	Naphtha converted unit under policy notification dated 17th June 2015
9	Brahmaputra Valley Fertilizers Corporation Limited (BVFCL) :Namrup-III	Assam	315000	Stage-III of New Pricing Scheme notified on 8th March 2007
Joint Venture				
10	Ramagundam Fertilizers and Chemicals Limited (RFCL)	Telangana	1270000	Revival Unit under New Investment Policy-2012 notified on 2nd January, 2013
11	Hindustan Urvarak&Rasayan Ltd.: Gorakhpur	Uttar Pradesh	1270000	Revival Unit under New Investment Policy-2012 notified on 2nd January, 2013
12	Hindustan Urvarak&Rasayan Ltd.: Sindri	Jharkhand	1270000	Revival Unit under New Investment Policy-2012 notified on 2nd

				January, 2013
13	Hindustan Urvarak&RasayanLtd.: Barauni	Bihar	1270000	Revival Unit under New Investment Policy-2012 notified on 2nd January, 2013
Cooperatives				
14	Indian Farmers Fertilizer Cooperative (IFFCO):Kalol	Gujarat	544500	New Urea Policy-2015 notified on 25th May, 2015
15	Indian Farmers Fertilizer Cooperative (IFFCO):Phulpur	Uttar Pradesh	551100	New Urea Policy-2015 notified on 25th May, 2015
16	Indian Farmers Fertilizer Cooperative (IFFCO):PhulpurExpn.	Uttar Pradesh	864600	New Urea Policy-2015 notified on 25th May, 2015
17	Indian Farmers Fertilizer Cooperative (IFFCO):Aonla	Uttar Pradesh	864600	New Urea Policy-2015 notified on 25th May, 2015
18	Indian Farmers Fertilizer Cooperative (IFFCO): AonlaExpn.	Uttar Pradesh	864600	New Urea Policy-2015 notified on 25th May, 2015
19	KrishakBharati Cooperative (Kribhco):Hazira	Gujarat	1729200	New Urea Policy-2015 notified on 25th May, 2015
Private Sector				
20	Gujarat State Fertilizers & Chemicals Limited (GSFC):Vadodara	Gujarat	370590	New Urea Policy-2015 notified on 25th May, 2015
21	Shriram Fertilizers & Chemicals Limited (SFC) :Kota	Rajasthan	379500	New Urea Policy-2015 notified on 25th May, 2015
22	Kanpur Fertilizers & Cement Limited (KFCL): Kanpur	Uttar Pradesh	722700	New Urea Policy-2015 notified on 25th May, 2015
23	Paradeep Phosphates Limited : Goa (Earlier ZACL)	Goa	399300	New Urea Policy-2015 notified on 25th May, 2015
24	Southern Petrochemicals Industries Limited (SPIC):Tuticorin	Tamil Nadu	620400	Naphtha converted unit under policy notification dated 17th June 2015
25	Mangalore Chemicals & Fertilizers Limited (MCFL):Mangalore	Karnataka	379500	Naphtha converted unit under policy notification dated 17th June 2015
26	Gujarat Narmada Valley Fertilizers Company Limited (GNVFC):Bharuch	Gujarat	636900	New Urea Policy-2015 notified on 25th May, 2015

27	Grasim Industries Limited/Indorama Industries Limited:Jagdishpur	Uttar Pradesh	864600	New Urea Policy-2015 notified on 25th May, 2015
28	Chambal Fertilizers & Chemicals Limited (CFCL):Gadepan-I	Rajasthan	864600	New Urea Policy-2015
29	Chambal Fertilizers &Chemicals Limited (CFCL):Gadepan-II	Rajasthan	864600	New Urea Policy-2015 notified on 25th May, 2015
30	Chambal Fertilizers & Chemicals Limited (CFCL):Gadepan-III	Rajasthan	1270000	Brownfield Unit under New Investment Policy-2012 notified on 2nd January, 2013
31	YARA Fertilizers India Pvt. Ltd./ TCL: Babrala	Uttar Pradesh	864600	New Urea Policy-2015 notified on 25th May, 2015
32	Kribhco Fertilizers Limited (KFL): Shajahanpur	Uttar Pradesh	864600	New Urea Policy-2015 notified on 25th May, 2015
33	Matix Fertilizers & Chemicals Limited, Panagarh	West Bengal	1270000	Greenfield unit under New Investment Policy-2012 notified on 2nd January, 2013

PART-II
OBSERVATIONS/RECOMMENDATIONS

Introductory

The Committee are happy to find record production of fertilizers during the FY 2024-25 *viz* production of P&K fertilizers (NPKS + DAP) increased from 138 LMT in 2021 to 158.78 LMT in 2024-25; SSP production increased from 49.35 LMT to 52.44 LMT; with a record total overall domestic production of fertilizers (Urea + P&K + SSP) increased to 517.89 LMT which is statedly the highest ever. The Committee note that against the Urea consumption of 388 LMT during the year 2024-25 the indigenous production has been only 307 LMT. The consumption of Urea is projected to be 444 LMT during the year 2035-36. The Committee further find that while the consumption of P&K fertilizers is projected to increase from 246 LMT during 2024-25 to 305 LMT during 2035-36 . Admittedly, to meet the requirements, India currently imports a significant share of its fertilizers, particularly potash and phosphate-based fertilizers along with raw materials like Natural gas used in urea production, thereby, exposing the Country to global market shocks, geopolitical risks and currency fluctuations. The Committee, are of the view that achieving self-sufficiency through domestic production, diversified sourcing and indigenous R&D can only help reduce these vulnerabilities and enhance strategic autonomy, while stabilizing subsidies and ensure timely availability of fertilizers to farmers during critical crop seasons. In view of the foregoing, the Committee are, therefore, of the considered view that the Government need to augment capabilities in this sector to increase indigenous production of fertilizers in the Country through promotion of R&D in fertilizer sector and also plugging the present deficiencies in this sector through a holistic review of all inter related sectors with a view to attain self-sufficiency. The Committee also desire that, keeping in view of the import dependence of fertilizer raw materials, the Government must further diversify its sources of import so as to offset the geopolitical compulsions.

Promotion of fertilizers production: Need for Enhancing Domestic Production Capacity (Urea, DAP, NPK, SSP)

2. The Committee note that during the last financial year, 2024-25, during Kharif and Rabi, India's consumption of fertilizers has reached 708 LMT for the first time. Out of this, about 387 LMT is Urea, and the consumption of MOP, NPK, DAP, and SSP, put together is 320 LMT. The Committee further note that during the year 2024-25, the total production of Urea is 306.67 while that of P&K Fertilizers is 211.21 LMT. Therefore, to ensure consistent and affordable access to key fertilizers - namely Urea, DAP (Di-Ammonium Phosphate) and NPK (Nitrogen, Phosphorus, Potassium) Complexes, the Country has to resort to import of these fertilizers which are vital to ensure that food production meets the domestic demand. The Committee note that there is a gap between domestic consumption and production of fertilizers in the Country. The Committee, therefore, urge the Department of Fertilizers to constitute a Task force to chalk out a time bound targeted strategy with required budgetary support so as to enhance domestic Urea production through proactive implementation and promotion of

the New Investment Policy (NIP)–2012 and its amendments; New Urea Policy, 2015 and also expand production capacity of P&K fertilizers through fiscal and tax incentives for setting up of new units and securing long term agreements with the resource rich countries to ensure secure supply chain, at most competitive rates. The Committee trust that the Department would take concrete measures in this direction.

Ensure timely Commissioning of New Urea Plants:

3. The Committee are happy to note that in the Union Budget 2025-26, the Government had announced targets for attaining Atmanirbharat in Urea production. Accordingly, to further augment Urea supply, a plant with annual capacity of 12.7 lakh metric tons was to be set up at Namrup, Assam with tentative overall time schedule for commissioning of the proposed Namrup-IV Project kept at 48 months. Statedly, the energy efficiency and expected life shall be in line with the modern-day fertilizer plants. The Committee have also been informed that Government have mandated revival of Talcher unit of M/s FCIL, through a Joint Venture Company with production capacity of 12.7 LMTPA Urea by using coal gasification technology which is under execution phase and has achieved an overall physical progress of 67.06 % as on 30th May, 2025. The Committee find that on completion of the projects, it was projected that the production of urea in the Country will subsequently increase and help maximizing indigenous production of Urea. The Committee, therefore, recommend that the Government take concrete steps and provide support at all levels for the commissioning of the Namrup-IV Plant and Talcher Unit within the stipulated time period without cost overruns, so as to meet the urea demands of the Country and help reduce the subsidy burden. The Committee may be apprised of the action taken in this regard.

4. The Committee find that five units of Fertilizer Corporation of India Ltd (FCIL) at Sindri (Jharkhand), Talcher (Odisha), Ramagundam (Telangana), Gorakhpur (Uttar Pradesh) and Korba (Chhattisgarh) and three units of Hindustan Fertilizers Corporation Ltd (HFCL) at Durgapur, Haldia (both in West Bengal) and Barauni (Bihar) were closed down since September, 2002 due to obsolete technology and high energy consumption of plants and economic unviability. However, to increase Urea production in the Country, the Government, approved revival of Talcher and Ramagundam units of FCIL in 2011 by setting up gas-based fertilizer plants of 1.27 MMTPA capacity. Further, the Government, in Year 2016, approved revival of Gorakhpur & Sindri units of FCIL and Barauni unit of HFCL by setting up gas-based fertilizer plants of 1.27 MMTPA capacity each. The Committee are happy to note that the Ramagundam, Gorakhpur, Barauni and Sindri fertilizer plants have started urea production whereas the Talcher plant is under execution phase. The Committee, further find that the Talcher project was being set up as a greenfield urea plant through coal gasification technology, utilizing the abundantly available domestic coal for Urea production. Statedly, on completion of the project, the production of urea in the Country will increase and it will also provide security in feedstock supply as coal would be sourced domestically and provide alternate route for urea production. The Committee note that against the urea consumption of 388 LMT, the indigenous production of Urea was 307 LMT during 2024-25 and the demand is

expected to increase to 444 LMT by 2035-36. With a view to enhance the Urea production in the Country and achieve self-reliance in its production, the Committee, strongly, recommends for taking timely effective policy initiatives to facilitate early revival of Durgapur and Haldia units of HFCL and Korba unit of FCIL by leveraging their strategic locations and existing infrastructure, and utilizing the coal-gasification route, etc. which would reduce the demand supply gap of urea and enhance domestic production capacity. The Committee would like to be apprised of the progress made by the Department in this regard.

5. The Committee note that the production of Urea during 2023-24 was 314 LMT and it has come down to 307 LMT during the year 2024-25. The Committee were further note that the decrease in production capacity was because one private plant with an annual capacity of 12 LMT has been sold and is out of Urea. As the Country is dependent on imports in the sector, the Committee are of the opinion that the Government may formulate its policies to regulate the sale/ disinvestment process of fertilizer units, etc. so as to mandate production continuity clause(s) which may require the purchaser(s) to continue with the production of Urea/ other fertilizer, so that the production capacity of the Country remains maintained and the import burden gets reduced. The Committee may be apprised of the action taken in this matter.

Urgent need for upgradation/ modernization/ revival of aging Urea plants.

6. The Committee note that out of the 33 Urea plants in the Country; 27 units are over 25 years old and 07 units are over 50 years old. The Committee further note that these old plants are regularly upgrading and revamping themselves through the NUP-2015 which has enhanced their Energy efficiency and savings. Admittedly, even though the life of a Urea plant is 35 years, Plants with 50 years are still working beyond that lifetime due to good maintenance. However, as admitted by the Department during evidence, in the next five years, transition to new technology and replacement would be the biggest need of this Sector. The Committee observe that the fertilizer industry is capital intensive and one new Urea plant costs about Rs. 10,000 crores with production capacity of 12.7 LMT per annum and has rated life of more than 35 years. Statedly, the plants presently operating have huge costs of operation and maintenance, which make them, to some extent, unviable. Keeping in view the urgent need to augment the domestic production of fertilizers in the Country to meet the growing requirements over the years, the Committee recommend that a special task force be constituted for up-gradation/ modernization/ revival of these aging Urea plants with the latest state of art technology, in a time bound manner, focusing on enhancing their energy efficiency and production capacity and make them globally competitive. The Committee further desire that in order to meet the ever-increasing demand for fertilizers, Government may come up with new Green field and brown field fertilizer projects to minimize import requirements so that requisite fertilizers may be supplied well ahead of time and a buffer stock also maintained.

7. The Committee were apprised that keeping in view the need for urgent need for replacement/ modernization/ revival of the aging 33 Urea Plants in the Country, the NITI

Aayog has endorsed sufficient Budgetary support to help the producers go for modernisation with the best of technology which may have an embedded energy-saving Scheme. The Committee, therefore, recommend that for full-filling the ever-increasing demand for fertilizers in the Country, the Department may earnestly work out the budgetary requirements and project the same before the Ministry of Finance to provide fiscal support and incentives to the aging urea manufacturing units to ensure their immediate revival and modernization, so as to successfully accomplish the goals of Aatmanirbhar Bharat in the sector.

8. The Committee have been apprised that BVFCL's production and energy performance has been affected due to ageing of the plants and obsolescence of equipment/ unavailability of spare parts of the equipment. However, PDIL has been approached for Performance Study of Namrup-III plants of BVFCL, identification of weak areas and recommendation for remedial measures so that Plants may become capable of operating optimally. Further, both the units of RCF, i.e., RCF Thal Unit and RCF, Trombay are in operation for more than 40 years which results in some unforeseen breakdown leading to production interruption. However, regular preventive maintenance activities are planned to avoid any major breakdown. The Committee, therefore, desire that the Department of Fertilizers take cogent measures for effective action after the completion of the Performance Study of Namrup-III Plant of BVFCL and steps for the comprehensive upgradation of RCF Thal and RCF, Trombay Units, so that these plants becomes operational at optimum efficiency within the timelines stipulated.

Need to develop Technology for fertilizer manufacturing industry

9. The Committee find that despite having an excellent pool of engineers and managers in Urea plants, the Country still depend upon foreign companies for the basic license of running, repairing and making the plant with everything kept in the hands of the licensor. Admittedly, the indigenous 'Chemical Process Technology Development for fertilizers' encompasses various stages, from initial laboratory research to pilot testing to scale up and finally full-scale plant operation, often involving iterative cycles of refinement entailing involvement of a massive investment in R&D in the field of synchronized pipe-based technology based on advance metallurgy, design and fabrication of all connected to overall objective to achieve better energy efficiency to minimize production costs. This integrated approach requires multiple institutional participation as Individual Companies on their own may not be suitable to develop end-to-end solution having competitive advantage and energy savings. Keeping in view the present constraints, the Committee feels the need to develop a self-sufficient indigenous eco system with integration of institutions to develop a process technology for urea and complex fertilizers. The Committee were apprised by the Department's representative during oral evidence that there were four Companies from the Netherlands, the USA, Italy and Japan which have authority to grant the license in India. The Committee, therefore, feel the urgent need for development of indigenous technology for setting up fertilizer plants and maintaining them, through an integrated approach by engaging the best of institutions and technical experts in the field, backed by suitable Budgetary support and Government

patronage, which will remove the technical constraints and dependence and speed up self-reliance in the sector. The Committee recommend that a special high power task force be constituted for this purpose at the earliest.

Need to increase indigenous Production of P&K Fertilizers:

10. The Committee note that the Country is heavily dependent on imported raw materials for production of Phosphatic and Potassic (P&K) fertilizers; and it imports nearly 95% of its phosphate requirements and is 100% dependent on imports of Potash. The Committee observe that any increase in global prices of these raw materials exchange rate fluctuations and global supply chain disruptions due to geo-political reasons, impact the domestic cost of fertilizer production. Admittedly, the domestic production capacity of P&K fertilizers (which includes DAP & NPK) in the Country is approx. 160 LMT per annum against the total requirement of 240 LMT per annum. The Committee have been apprised that the consumption of P&K fertilizers was expected to increase to 305 LMT during 2035-36. The Committee, however, find that work for commissioning of some new units & capacity enhancement initiatives are planned/ in progress in the P&K Sector which include the RCF, Thal, DAP/NPK plant with annual capacity of 5 LMT and FACT, Kochi, DAP/NPK plant with annual capacity of 5.5 LMT. The Committee, therefore, impress upon the Department to intensify the measures to facilitate timely completion of the projects initiated and capacity expansion of the other existing plants by resorting to a coordinated, integrated approach; embracing perspective of the whole industry, which will enhance domestic production of P&K fertilizers and thus reduce import dependence and ensure affordable supply to the farmers.

Secure Long-Term Overseas Agreements

11. The Committee further note that, due to fundamental deficiency of Phosphate and Potash raw material in the Country, these are imported making self-reliance in the P&K fertilizers a far cry. Regarding the import dependency in the Sector, the Committee have been informed that the Country imported 70 LMT of urea during 2023-24 i.e. 39.7 percent of requirement, while imported 106 LMT of P&K fertilizers during 2023-24, which is 60.3 percent of total demand. As India imports a significant share of its fertilizer requirements and raw material, the Committee find that the dependence exposes the Country to global market shocks, exchange rate fluctuations and delicate geo political situation which also affects the optimal operation of fertilizer plants to their installed capacity. The Committee, therefore, recommend that the Government should consider facilitating establishment of long term agreements and joint venture projects with Countries rich in fertilizer resources, especially in case of P&K fertilizers; for establishment of production facilities with buy back arrangements; access to acquisition of fertilizer raw materials abroad and for supply of fertilizers and their raw materials so as to secure regular resource access and supply chain stability for timely supply of requirements at most competitive rates and to avoid price volatility. The Committee are of the considered opinion that this will also facilitate the fertilizer units to operate at optimum capacity without supply hindrances and effectively reduce the

subsidy burden. The Committee may be apprised of the action taken in the matter.

Introduction and promotion of new varieties of indigenous fertilizers, viz Sulphur Coated Urea "Urea Gold".

12. The Committee note that Sulphur Coated Urea (SCU) with the name of "Urea Gold" was launched during 2023-24 and the cost of its 40Kg bag is similar to the cost of 45 Kg bag of Neem Coated Urea. During 2024-25, a total 26,085 MT of Urea Gold was produced in the Country. The Committee were apprised that all the Urea manufacturing companies were requested to explore the feasibility of starting production of Sulphur Coated Urea vide DoF's Letter dated 6th September, 2023. Subsequently, RCF-Trombay has commenced SCU production from October, 2023 and NFL-Panipat from July, 2024. The total production of SCU in FY 2024-25 (till 31.01.2025) was 20,947 MTs and total sales was 16,154 MTs. The Committee observe that Urea Gold will also promote Nutrient Use Efficiency with potential to decrease Urea consumption to some extent and is expected to result in reduction of import dependence. The Committee are, therefore, of the considered view that the Government should further promote its production and use as an alternative fertilizer to Urea, through effective its policy initiatives.

Support production of indigenous Single Super Phosphate (SSP) fertilizer.

13. The Committee note that Single Super Phosphate (SSP) fertilizer is indigenously manufactured in the Country and provides Phosphorus and Sulphur nutrients to the soil. Statedly, the production of SSP in the Country has increased from 49.35 LMT in 2021 to 52.44 LMT in 2024-25 by 104 SSP manufacturing units. Further, the installed capacity of SSP has increased from 96.07 LMT during 2014-15 to 126 LMT as on 31.01.2025. The Committee are happy to note that to increase the manufacturing capacity of new P&K products and make the Country self-reliant, Freight Subsidy on SSP has been approved on pilot basis from Kharif, 2022 and made applicable from Rabi, 2022 onwards to help in promotion of SSP usage for providing Phosphatic or "P" nutrient to the soil. Relaxation to the minimum production criteria of 50,000 MTPA for availing subsidy by SSP manufacturing units has also been extended up to 31.3.2026. Three new SSP Manufacturing units have been inducted under NBS Scheme with a capacity of 1,00,000 MTPA each (Total 3,00,000 LMTPA) to enhance the capacity of SSP. Approval to the existing SSP Manufacturing units have also been granted for capacity enhancement . The Committee were apprised during evidence that, as the Country does not have reserves of raw Phosphate and Potash, therefore, every bag of DAP was imported. Appreciating the measures taken by the Department to increase the production and use of SSP in the Country, the Committee call upon the Department to intensify their efforts to support setting up of new SSP units by extending the freight subsidy on SSP and other policy measures, with a view to enhance Phosphate availability for the farmers and reduce its import. The Committee may be apprised of the action taken in the matter.

Encourage production and use of PDM.

14. The Committee note that Potash Derived from Molasses (PDM), a 100% domestically manufactured fertilizer, is rich in potassium and derived from ash in molasses-based distilleries as a by-product of sugar-based ethanol industry. The potash-rich ash generated when burnt can be processed to produce PDM having 14.5% potash content and is used by farmers as an alternative to MOP (Muriate of Potash with 60% potash content). Currently, potash as a fertilizer is totally imported in the form of MOP. Presently about 5 LMT of Potash Ash generated from ethanol distilleries is being sold domestically whereas the current potential to produce this is about 10-12 LMT. Technically, 4 bags of PDM or lesser number may be required per hectare as compared to one bag of MOP for providing equivalent potash to the soil and getting the similar yield. The Committee are happy to learn that the Department has notified PDM under the Nutrient Based Subsidy (NBS) scheme w.e.f. 13.10.2021. Moreover, six units have been inducted under NBS scheme for PDM. The Joint Working Group constituted by the Government consisting of representatives from the D/o Food and Public Distribution & D/o Fertilizers have fixed a suggestive price of Rs. 4263/Ton (inclusive of bagging, loading and taxation) of PDM which has been agreed by the Indian Sugar Mills Association (ISMA) as well as Fertilizer Companies. Moreover, Workshops were conducted by DoF for sugar units to familiarize sugar mills/distilleries with NBS subsidy claiming process under iFMS. Statedly, the Government was also encouraging promotion of PDM through regular publicity campaigns across various media platforms. As a result of sustained efforts for promotion, sales of PDM stood at 3.03 LMT during 2023-24 and 3.91 LMT in 2024-25. During the ongoing FY-2025-26, 45831.55 MTs PDM sales has been registered till 31.05.2025. Keeping in view that PDM has come up as an alternative to MOP and is biotic, the Committee, hope that the Department will further encourage Sugar mills and fertilizer companies throughout the Country to make concerted efforts to increase its production capacity upto 10-12 LMT per annum. The Committee, further, desire that the Department should facilitate inclusion of many more Units under NBS for production of PDM which will reduce import dependency and make it domestically available to the farmers.

Enhance production of Nano fertilizers:

15. The Committee were informed that Nano Fertilizers hold great promise for application in plant nourishment with Nano Urea & Nano DAP available in bottles at cheaper prices than conventional Urea & DAP. The Committee find that Department of Agriculture & Farmers Welfare (DA&FW) has provisionally notified Nano Urea as Nano Nitrogen Fertilizers under the Fertilizer Control Order (FCO), 1985, based on bio-efficacy trials conducted at multiple locations, along with bio-safety test results. These trials, conducted on various crops demonstrated that two foliar sprays of Nano Urea, when applied as a top dressing along with the recommended basal dose of nitrogen, resulted in comparable yields to those obtained with a full recommended nitrogen dose and led to a yield advantage of 3-8% and a urea saving of 25-50% in various crops. Cost analysis studies have further shown that while the initial price of nano fertilizers may be

higher than subsidized conventional fertilizers like urea, but ultimately, they are more cost-effective due to better nutrient uptake and reduced wastage, leading to higher crop yields with lower overall fertilizer usage and also indirect benefits in terms of reduction of soil-air-water pollution level. Nano Urea is rising as a very important supplement of the chemical fertilizer and during the last 2 ½ years, 9 crore 32 lakh bottles of Nano Urea have been sold which is equivalent to 42 lakh tonnes of conventional Urea. Similarly, Nano DAP has found excellent acceptance by the farmers. By the end of 2024, more than 3 crore bottles of Nano DAP have been produced and out of them 2.16 crore bottles have been sold which is equivalent to 10.82 LMT of conventional DAP which would have been imported. The difference in price is very promising for the farmers because one bag of DAP costs Rs. 1,350 but one bottle of Nano DAP costs only Rs. 600. Two plants with 12 crore bottles capacity are coming up in 2025-2026 and our PSUs are also entering into the field. Moreover, the production of Nano fertilizers requires very little of raw material because of its Nano size. The Committee were apprised that, to meet the growing demand for fertilizers and reduce import dependency, the Government of India is actively promoting the production and adoption of innovative Nano Fertilizers. The Committee are of the view that as production of Nano fertilizers require little quantity of raw materials, the Department may extend full support through its policies and programs to expand the production capacity of Nano fertilizers including Nano Urea and Nano DAP, many fold so that it could significantly replace the use of conventional Urea/ P&K fertilizers over the years and contribute to attaining self-sufficiency in fertilizers sector. The Committee trust that DoF would take concrete time bound and sincere steps in this direction, for meeting the fertilizers requirement, domestically.

Conduct long-term trials on Nano fertilizers to establish their efficacy, etc.

16. The Committee were informed that an MoU was signed on 5th March, 2024 between National Productivity Council (NPC) of India and Department of Fertilizers to undertake the study of Nano Urea so that its efficacy, impact and potential to replace the conventional Urea can be ascertained. Further, ICAR is undertaking the project titled "Effect of Nano Urea and DAP and Popularization of its Use in Crop Production" which has been approved by ICFFTR, during the period from 2024 to 2026, at a cost of Rs.160 lakh to evaluate the impact of Nano Urea and DAP on crop growth, soil health, and nutrient uptake across various agro-ecological zones in India. As Nano Urea has been Notified recently in year 2021 and subsequent Nano fertilizer products are being developed by the fertilizer companies through research, the Committee desire that long-term field trials of application of nano fertilizers may be got conducted by the Department on various crops throughout the Country in coordination with various research organizations, KVK's, etc. to thoroughly assess and validate the merits and demerits of use of Nano fertilizers in terms of crop productivity, nutritional quality of crop produced, soil health, etc.; so that it may be optimally adopted by the farmers as replacement to conventional fertilizers.

Vigorous R&D in nano fertilizers for introduction of more variants.

17. The Committee note that the broad varieties of chemicals fertilizers being used by the farmers in the Country are Urea, DAP, MOP, NPKS and SSP. During evidence a representative of the Department admitted about the limitations of the Country due to dependence on import of fertilizers and raw materials because of which lot of planning is to be done to bring a non-volatile availability at a price that is competitive. Any disruption in supply may lead to plant utilization deficiency. Against this background, it is satisfying to note that Nano Fertilizers hold great promise for application in plant nourishment because of the size-dependent qualities, high surface-volume ratio and unique optical properties. Nano Fertilizers viz Nano Urea & Nano DAP, which are available in bottles are at cheaper prices than conventional Urea & DAP. Studies undertaken by ICAR have shown that a single 500 ml bottle of Nano Urea can replace an entire 45 kg bag of conventional urea, significantly reducing transportation and handling costs. It helps farmers lower input costs by 20-25% while maintaining or even enhancing crop productivity. Moreover, it's use reduces the soil-air-water pollution level. As per the Indian Council of Agricultural Research (ICAR), preliminary field trials conducted on select crops indicated that Nano DAP, when used as a seed treatment and foliar spray, can significantly reduce the requirement for conventional granular DAP. Further, field trials have shown that Nano DAP, when used as a seed treatment and foliar spray, can significantly reduce the requirement for conventional granular DAP. Due to ongoing research in the field, the Government of India has notified Nano Urea with varying specifications and nitrogen content during the last few years. In view of the numerous benefits and advantages of Nano fertilizers, the Committee, strongly recommend that the Government may encourage vigorous Research in the field to promote development of more such Nano fertilizers variants (Macro and Micro nutrient grades)through coordinated approach involving both the Public and Private sector companies, in order to ensure self-sufficiency in fertilizers for sustainable agriculture. The Committee further desire that the Department of Fertilizers may work-out and seek for allocation of sufficient funds for developing innovative nano fertilizers so that it gets focused attention and ensure regular supply of various fertilizers at reasonable rates, ease subsidy burden and help save precious foreign exchange by reducing the import burden of the Country.

Provision of sufficient number of Drones for application of Nano fertilizers

18. The Committee note that for the ease of application and utilization of Nano fertilizers such as Nano Urea through foliar spraying, various initiatives have been undertaken which include the promotion of 'Kisan Drones' and the distribution of battery-operated sprayers at retail outlets. Moreover, pilot training and custom hiring services through Village Level Entrepreneurs (VLEs) are being actively encouraged to support last-mile delivery. In this direction, the Department of Agriculture & Farmers Welfare (DA&FW) is implementing the Namo Drone Didi Scheme, a Central Sector initiative approved by the Cabinet which aims to provide 15,000 drones to Women Self

Help Groups (SHGs) over a three-year period (2023-24 to 2025-26). Supporting this initiative, the Department of Fertilizers, has also through fertilizer companies, facilitated the distribution of 1,094 drones to SHGs under the Namo Drone Didi Scheme. Of these, 500 drones have been distributed as part of a pilot initiative. So far, 909 Drone Didi's have actively deployed these drones for spraying Nano fertilizers. Taking note of the measures taken, the Committee urge the Government to provide/ make available sufficient number of agricultural drones/ other sprayers to the farmers at subsidized/ convenient rates in each village/ Block level through SFGs, etc. so as to facilitate and encourage the farmers to switch over to use Nano fertilizers, on large scale. The Committee feels that more drone should be introduced at war footing.

19. The Committee are apprised that the Government and the Department of Fertilizers are supporting and promoting the use of drones and other agricultural sprayers for application of Nano fertilizers but they appear to be too less when compared to the vast requirement of the Country. The Committee are therefore, of the considered opinion that the Government may introduce Production Linked Incentive (PLI) scheme in fertilizers sector to incentivize/ augment domestic production of drones and fertilizer implements which may enable the farmers to purchase them at a reasonable price and thus enhance the use of Nano fertilizers which will reduce demand for chemical fertilizers.

Popularization of the features/ benefits of use of Nano fertilizers.

20. The Committee note the measures being taken by the Department of Fertilizers to popularize the features/ benefits/ mode of application, etc. for use of Nano fertilizers amongst the farmers throughout the Country which include awareness camps, webinars, Nukkad-Nataks, field demonstrations, Kisan Sammelans and films in regional languages, etc. Admittedly, the Government of India has pursued with the States on use of Nano fertilizer at various forums. DA&FW during the Rabi, 2024-25 season assessed the requirement of Nano Urea and Nano DAP. Further, Nano Urea has been included under monthly supply plan issued by Department of Fertilizers. While appreciating the efforts being made by the Department of Fertilizers to promote the use of Nano fertilizers amongst the farmers, the Committee feel that a lot of work still need to be done in this direction by popularizing their benefits on account of added income through more produce, less transportation cost, eco-friendly product, precise spray in less time, etc.

Promotion of Research & Development in fertilizers - Need for sufficient Budgetary allocation/ support.

21. The Committee note that to promote and facilitate research and development in the field of fertilizers, the Department of Fertilizers has established a dedicated national-level think tank, Indian Council for Fertilizers and Fertilizer Technology Research (ICFFTR) which was funded by the member companies, mostly PSUs. Under this endeavor, RCF has actively contributed by successfully developing and commercializing two innovative fertilizers i.e., Organic Fertilizer (PROM) and Bio-

stimulant fertilizer. The products developed are eco-friendly and align with the Government's emphasis on sustainable agricultural practices. Moreover, NFL is setting up Sulphur Coated Urea (Gold Urea) plant having annual capacity of 5000 MT at its Panipat and Nangal Units under R&D Project. Further, as part of planned R&D activities, Indian Council of Agriculture Research (ICAR) and other research institutes, etc. have carried out Nano Urea (liquid) and Nano DAP trials on different crops covering 15 agro-climatic zones. In view of the non-availability of fertilizer raw materials in the Country the Committee stressed the need for R&D in the sector so that indigenous alternative materials could be developed which was already agreed to by the representatives of the Department during oral evidence. The Committee therefore, recommend that the Department of Fertilizers should work in unison with the Fertilizer PSUs, Private and Cooperative sector and research institutes to promote and patronize targeted R&D activities in the field of Fertilizers for development of alternative indigenous, efficient, eco-friendly, varieties of nano fertilizers (Urea/ P&K/ macro &micro nutrient grades), bio-fertilizers, organic fertilizers, compost, bio-stimulants, etc, so as to facilitate achievement of the objective of self-sufficiency in the sector. The Committee, also strongly desire that the results of R&D activities be shared amongst the fertilizer companies with a view to enhance the production of fertilizers, to meet the increasing demand of farmers.

Promotion of production and use of Organic & bio-fertilizers.

22. The Committee learn that to make fertilizer production more environmentally sustainable in India, two new additional components viz. PM Programme for Restoration, awareness Generation, Nourishment and Amelioration of Mother Earth (PMPRANAM) and Market Development Assistance (MDA) have been introduced to promote organic Fertilizers with a view to save the health of soil by way of promoting natural farming, balanced/sustainable use of chemical fertilizers, and proactively promote alternate fertilizers. Further, the Government has approved Market Development Assistance to promote organic fertilizers produced at plants under the umbrella GOBARdhan initiative covering different Biogas/ CBG support schemes/ programs to promote sale of soil organic Carbon enhancers like Fermented Organic Manure (FOM), Liquid Fermented Organic Manure (LFOM) and Phosphate rich FOM, etc. As submitted, the policy on promotion of organic fertilizers is a new scheme approved by the CCEA in its meeting held on 28th June, 2023 wherein MDA @ Rs.1500/MT has been provided to promote organic fertilizers 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. The Committee further learnt that an exercise is underway for evaluation of the scheme for extension beyond 31.03.2026. Moreover, to promote use of organic fertilizers in the Country, Government is promoting organic farming through the scheme of Paramparagat Krishi Vikas Yojana (PKVY) in all the States/UTs (except North Eastern States). For North Eastern States, 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 processing, certification & marketing and post-harvest

management training and capacity building. While appreciating the efforts of the Government for promotion of Organic and bio-fertilizers in the Country, the Committee desire that Government may prioritize their production and use at each village and block level through enhanced rates of Market Development assistance/special incentives, etc. as this will reduce the use of Chemical fertilizers, improve the soil health and strengthen the rural economy. The Committee are also optimistic that the Department would pursue with the concerned Ministry for the continuance of the Schemes for promotion of manufacturing and sale of Organic fertilizers beyond March, 2026.

Need for continuance of Urea Subsidy Scheme.

23. The Committee note that Urea Subsidy Scheme is a Central Sector Scheme of the Ministry of Chemicals & Fertilizers is wholly financed by the Government of India through Budgetary Support. Urea Subsidy Scheme has three components, i.e., Indigenous Urea, Imported Urea and Uniform Freight Subsidy. Indigenous urea subsidy is administered to the urea units towards indigenous urea production. Admittedly, Imported Urea subsidy is directed towards imports made to bridge the gap between assessed demand and indigenous production of urea in the Country. Both components also include freight subsidy for movement of urea across the Country under the Uniform Freight Subsidy Policy. The objectives of Urea Subsidy Scheme are to ensure timely availability of adequate quantity of urea at statutory controlled price to the farmers across the Country; to optimize indigenous urea production and to rationalize the subsidy outgo of the Government. The Scheme also enables the urea units in sustaining their operations and energy efficiency. Under the Scheme, Urea is presently provided to the farmers at a statutorily notified Maximum Retail Price (MRP) of Rs.242 per bag of 45 kg urea (exclusive of charges towards neem coating and taxes as applicable). Admittedly, all farmers of the Country are beneficiaries of this Scheme. According to the Report of the Third-party evaluation got conducted by the Ministry regarding the need for continuance of Urea Subsidy Scheme; due to the scheme, under New Urea Policy 2015 (NUP-2015), the production of urea increased from 225.8 LMT in 2014-15 to 244.75 LMT in 2015-16 and it also led to improvement in Energy efficiency of urea industries at par with global standards. It resulted in increased crop yield and reduced the expenditure of farmers for cultivation due to use of less amount of urea in cultivation. The study recommended for commissioning of five manufacturing units under Public sector so as to attain self-sufficiency and the necessity for continuation of the urea subsidy scheme to help the urea industries, farmers, and the agriculture sector. The Committee were apprised that the evaluation for review of the continuation of Urea Subsidy Scheme beyond 31.03.2025, is under consideration in the Department. The Committee, therefore, impress upon the Department to take a holistic view for continuance of the Urea subsidy policy, in view of its numerous benefits to all stakeholders including the farmers; and further aiming to promote the use of desired proportion of Nitrogen, Phosphate and Potash (4:2:1) in farming, in our Country.

Nutrient Based Subsidy policy – P&K fertilizers

24. The Committee note that the Government has implemented Nutrient Based Subsidy (NBS) Policy w.e.f. 01.04.2010 for Phosphatic and Potassic (P&K) fertilizers. Under the policy, a fixed amount of subsidy, decided on annual/bi-annual basis, is provided to manufacturer/ importer on notified P&K fertilizers depending on their nutrient content i.e. Nitrogen (N), Phosphorus (P), Potassium (K) and Sulphur (S) to improve availability of fertilizers to farmers. As a result of steps taken by the Government, production of DAP has increased to 37.69 LMT in 2024-25. Similarly, the production of NPKs has increased to 113.28 LMT in 2024-25 by 22 P&K fertilizer manufacturing units and production of SSP has increased to 52.44 LMT in 2024-25 by 104 SSP manufacturing units. The main objectives of NBS Scheme are as to promote balanced use of fertilizers; rationalize impact of subsidy on the Government; improve availability of fertilizers to farmers and to encourage competition amongst the fertilizer companies.The Committee are satisfied to note that a Third-party evaluation of the Nutrient Based Subsidy scheme has shown that use of Phosphatic & Potassic (P&K) fertilizers helped in improving productivity in the farm land and multi-nutrient deficiency of the soil. Further, the product basket under NBS has increased from 22 grades in 2021 to 28 grades at present. The Committee, therefore, recommend that the present system of Nutrient Based Subsidy (NBS) Policy in P&K fertilizers may be continued and measures be taken to make it more effective by increasing the number of P&K fertilizers under NBS policy with the approval of FCO, rationalization of prices of P&K fertilizers, etc. with a view to boost manufacturing and encourage its use by the farmers.

25. The Committee note that only 19.7 LMT of P&K fertilizers were imported during the year against the targeted import of 30 LMT by the companies under Open General License, due to their financial compulsions. This resulted in the shortage of DAP in the Country and led to its black marketing. Moreover, there was shortage of fertilizers especially, DAP in the Country, due to international factors, as a particular Country did not supply fertilizers to India. Keeping in view that the matter is of serious concern, the Committee desire that a Central monitoring mechanism be developed to take timely effective actions during such emergent situations and a policy be framed for suitable action against the defaulting agencies, etc.

26. The Committee find that the raw material for production of urea or the feedstock is basically Natural Gas, which constitutes 90 percent of the cost of Urea and the remaining 10 percent is the cost like bagging cost, water cost, fixed cost, etc. All the 33 plants operating presently are Natural Gas based. Out of the total requirement, 74 per cent of the gas is imported through long-term agreements and the remaining 26 per cent of the gas is from the domestic sources which is cheaper. Since the import of gas depends upon a lot of geopolitical factors, international relations, etc., the Committee recommends that policy reforms be made in the Gas procurement mechanism so as to ensure its constant and uninterrupted supply at most competitive prices which will also result in reduction in subsidy outgo. The Committee, further, desire that the Department may pursue with the concerned Ministries to expedite the exploration and

extraction of oil and natural gas within the Country and for prioritizing allocation of domestic Natural gas to the urea manufacturing companies, which will reduce import burden and also decrease the cost of production.

Explore availability of raw materials in the Country, need to diversify sources of import, etc.

27. The Committee note that India has relatively low reserves of economically extractable potash and phosphate rock, and is therefore, import dependent to meet its requirements. Most of the Country's rock phosphate is low grade which requires benefaction before use. Admittedly, as submitted, there are 7 mining leases of Rock Phosphate out of which only 6 are working. In case of potash, the blocks in India are deep seated. The Committee are satisfied to note that, the Ministry of Mines with an objective of increasing production of fertilizer minerals under 'Critical and Strategic Minerals' category, has included Phosphate, Potash and Glauconite (Potassic mineral) under "The Mines & Minerals (Development and Regulation) Amendment (MMDR) Act, 2023". The Committee are of the considered opinion that concrete measures be taken in collaboration with all concerned Ministries and agencies for the exploration and mining of fertilizer raw materials in the Country, to enhance domestic production and achieve self- sufficiency in these minerals. In view of the dependence on raw materials, the Committee also exhorts the Ministry to further diversify its sources of import and secure mining lease agreements with raw material rich countries for extraction/ refining/ manufacturing of fertilizers to ensure their stable supply at competitive prices, cushioning the cost fluctuations.

Strengthening Fertilizers supply, allocation and distribution system.

28. The Committee find it encouraging that the Integrated Fertilizer Management System (iFMS) is a comprehensive, all-integrated system covering all functionalities in the fertilizer supply chain. This system covers the entire supply chain, meticulously capturing transactional data from raw material procurement, imports to fertilizer production and transportation via rail or road from plants, rake houses, ports to district warehouses, and finally sale at PoS enabled retailers. Everything is aligned with monthly supply plans at district level and the movement of fertilizers is being captured in real time. Various modules under iFMS have been developed to ensure capture and maintain the fertilizers movement and sale data accurately in a secured manner. The Committee, observe that in order to ensure the adequate and timely availability of good quality of fertilizers to the farmers, Department of Agriculture & Farmers Welfare assess the requirement of major fertilizers, namely Urea, DAP, MOP, complexes and SSP fertilizers, before each cropping season (viz. Rabi and Kharif) in consultation with DOF, State Governments/UTs. The Committee feel that the Department should further strengthen their iFMS System through upgrading the digital tool so that the farmers may also get access to the real-time movement/ availability of fertilizers in their respective States/UTs so as to curb pilferages and ensure timely availability, as per the requirements and supply plan put in place. Besides, it is imperative that the mechanism for assessment of requirement of fertilizers by the States and UTs should be made more accurate so that the allocation of State specific Fertilizers was realistic and they get adequate and timely supply.

Ensuring sufficient buffer stock in all regions.

29. The Committee have been informed that the storage arrangements and capacities in respect of fertilizers are overseen by the respective State Governments and the fertilizer companies; while the Department of Fertilizers ensures suitable supply of fertilizers in the States through indigenous production as well as imports. As a result, sufficient stocks get pre-positioned in the States before the start of each cropping season. The Committee desire that the Department should develop a fool-proof mechanism to constantly monitor on a real time basis, the buffer stock and availability of various types of fertilizers as per their specific requirements, well before the start of each cropping season, in all the States/UTs of the Country to guarantee that affordable fertilizers reaches the last farmer in the Country. The Committee may be apprised of the action taken in the matter.

Need to Promote balanced use of Fertilizers.

30. The Committee find that Urea was the most dominant element in fertilizers and in order to control its over-use and save the soil, different kinds of biotic inputs, better soil practices, better way of cultivation in the natural application of organic fertilizer have to be put in place. The Committee find that the indiscriminate and imbalanced use of chemical fertilizers coupled with low addition of organic matter and neglect of micro and secondary nutrients, over the years is causing multi-nutrient deficiencies and deterioration of soil health. Admittedly, the Government of India was implementing the Soil Health & Fertility Scheme since 2014-15. Under the Scheme, the Soil Health Cards are issued to farmers for providing information on fertility status of soils and recommends crop specific dosage of fertilizers. Further, the National Mission on Natural Farming (NMNF) was approved on 25th November 2024 as a Centrally sponsored scheme to encourage farmers to promote Natural Farming (NF) across the Country. While appreciating these steps, the Committee desire that the Department also take concrete requisite measures to train the farmers about balanced/ appropriate use of fertilizers as per crop and soil type, crop rotation, use of different kinds of biotic inputs, Natural farming, organic farming, etc. which will maintain soil health and reduce fertilizers dependency.

Efforts to stop mal-practices in the sale of Fertilizers.

31. The Committee find that Fertilizers were declared as an essential commodity under the Essential Commodities Act, 1955 and notified under Fertilizer Control Order, 1985. State Governments are empowered to take action against persons involved in black-marketing/diversion/smuggling as per provisions of EC Act. Admittedly, complaints received at Department of Fertilizers level regarding such cases is sent to

concerned State Government to take appropriate action under Essential Commodities Act, 1955 and Fertilizer Control Order, 1985. It has further been submitted that the Department of Fertilizers vide Circular dated 21.10.2016 notified that under Section 7 of Aadhaar (Targeted Delivery of Financial and other Subsidies, Benefits and Services) Act, 2016, the individuals desirous of availing subsidized Fertilizers are required to furnish proof of possession of Aadhaar authentication or undergo Aadhaar authentication. Since, December, 2023 as per the suggestion of Cabinet Secretariat, the Aadhaar authentication is mandatory in all States and UTs. The Committee expressed their concern to the reported cases of Black marketing and diversion of fertilizers, etc. since a huge amount of subsidy is being provided on fertilizers by the Government. The Committee, therefore, trust that more stringent policies and guidelines be devised in consultation with all stakeholders and the State Governments to ensure proper sale/ distribution of fertilizers in the Country to completely stop the mal-practices such as black-marketing/ smuggling/ pilferage, at all stages and conduct random checks to ensure the quality and quantity. The Committee, further desire that a feasibility of establishing a network of labs throughout the Country to check the quality of fertilizers being sold and further desires that a grievance redressal mechanism be established for prompt action and resolution of complaints in this regard. The Committee may be apprised of the action taken in the matter.

New Delhi;
19 AUGUST, 2025
28 SHRAVAN, 1947 (Saka)

AZAD KIRTI JHA
CHAIRPERSON,
STANDING COMMITTEE ON
CHEMICALS AND FERTILIZERS.

MINUTES OF THE SEVENTH SITTING OF THE STANDING COMMITTEE ON CHEMICALS AND FERTILIZERS (2024-25)

The Committee sat on Tuesday, the 06 January, 2025 from 1100 hrs. to 1330 hrs. in Committee Room 074, Parliament Library Building (PLB), House Annexe, New Delhi.

PRESENT

Shri Azad Kirti Jha – Chairperson

MEMBERS

LOK SABHA

1. Shri Ajay Bhatt
2. Shri Robert Bruce C.
3. Shri Bharatsinhji Shankarji Dabhi
4. Dr. Kalyan Vaijinathrao Kale
5. Shri Malvinder Singh Kang
6. Shri Babu Singh Kushwaha
7. Shri Utkarsh Verma Madhur
8. Shri Praveen Patel
9. Dr. Sambit Patra
10. Shri Balram Naik Porika
11. Shri Shivmangal Singh Tomar

RAJYA SABHA

12. Shri Subhash Barala
13. Shri Subhash Chandra Bose Pilli
14. Shri Akhilesh Prasad Singh
15. Shri Tejveer Singh

SECRETARIAT

1.	Smt. Suman Arora	-	Additional Secretary
2.	Ms. Miranda Ingudam	-	Director
3.	Shri Nagendra Suman	-	Deputy Secretary

WITNESSES

I. Representatives of the Ministry of Chemicals and Fertilizers (Department of Fertilizers)

1. RAJAT KUMAR MISHRA, Secretary (Fert.)
2. MS. ANEETA C MESHRAM, Addl. Secretary
3. MANOJ SETHI, Joint Secy. & FA
4. MS. APARNA SHARMA, Joint Secretary

5. DR.PRATIBHA A., Eco Advisor, Eco. Advisor
6. Shri MANOJ KUMAR, Dy. Secretary

2. At the outset, the Chairperson welcomed the representatives of the Department of Fertilizers (DoF), Ministry of Chemicals and Fertilizers to the sitting of the Committee convened for briefing on the subject 'Self-sufficiency in production of fertilizers with a view to curb imports – Review of constraints thereof'. Their attention was drawn to Direction 55(I) of the 'Directions by the Speaker' regarding confidentiality of the proceedings of the Committee before seeking inputs on country's position in terms of production both Urea and NPK fertilizers and availability of raw material, their import dependence besides steps that can be initiated to address the constraints in the way of attaining self-sufficiency. The Committee also wanted to be apprised on the efficacy of the present policy framework in curbing imports, scaling up domestic production and ensuring balanced fertilizer use to promote soil health as also laying stress on the emerging technologies and alternative inputs, such as nano-urea, organic fertilizers, and bio-based solutions that may help in achieving self-sufficiency in the fertilizer sector.

3. The Secretary, Department of Fertilizers then briefed the Committee on the issues raised by the Committee by way of a power-point presentation on the background of the Fertilizer Subsidy, the initiatives underway and the challenges that needed to be addressed in order to achieve self-sufficiency in the fertilizer sector. The Secretary apprised that the steps taken in the direction have fructified mainly in terms of Urea. Progress has also been made under P&K i.e. DAP, NPKS and MOP leading to substantial addition in the internal capacity, results of which may be visible in the near future. The Secretary also responded to the queries raised by the members.

4. The Committee, thereafter, sought clarifications on certain issues related to the fertilizer sector which were replied to by the representatives of the Department besides highlighting the major issue of limited reserves in respect of N,P&K in the country.

5. The Chairperson on conclusion thanked the Secretary, DoF and accompanying officers for briefing the Committee on the important aspects related to the subject and clarifications thereto and asked them to furnish written replies to the points raised by the Members that remained unanswered for consideration of the Committee.

4. A copy of the verbatim record of the proceedings of the sitting has been kept.

(The witness then withdrew).

The Committee then adjourned.

MINUTES OF THE NINETEENTH SITTING OF THE STANDING COMMITTEE ON CHEMICALS AND FERTILIZERS (2024-25)

The Committee sat on Friday, the 09 May, 2025 from 1145 hrs. to 1310 hrs. in Committee Room 02, EPHA, A Block, Parliament House Annexe, New Delhi.

Present

Shri Azad Kirti Jha – Chairperson

Members

Lok Sabha

16. **Shri Robert Bruce C.**
17. **Shri Bharatsinhji Shankarji Dabhi**
18. **Shri Malvinder Singh Kang**
19. **Shri Babu Singh Kushwaha**
20. **Shri Praveen Patel**
21. **Shri Balram Naik Porika**
22. **Shri Daggumalla Prasada Rao**
23. **Shri Nalin Soren**
24. **Shri Shivmangal Singh Tomar**

Rajya Sabha

25. **Shri Subhash Barala**
26. **Dr. Kalpana Saini**
27. **Shri Arun Singh**
28. **Shri Akhilesh Prasad Singh**
29. **Shri Tejveer Singh**

Secretariat

5.	**Smt. Maya Lingi**	**-**	**Joint Secretary**
6.	**Shri Nagendra Suman**	**-**	**Deputy Secretary**
7.	**Shri Abhishek Kumar**	**-**	**Deputy Director**
8.	**Ms. Neelam Bhave**	**-**	**Committee Officer**

WITNESSES

Representatives of the Ministry of Chemicals and Fertilizers (Department of Fertilizers)

1. **Shri Rajat Kumar Mishra, Secretary (Fertilizers)**

2. **Ms. Aneeta Meshram, Addl. Secretary**
3. **Ms. Aparna Sharma, Addl. Secretary**
4. **Shri Bharat Bhushan, Sr. Eco. Advisor**
5. **Shri Anurag Rohtagi, JS**
6. **Dr. Prathibha A., Eco. Advisor**
7. **Shri Anil Phulwari, Director**

2. At the outset, the Chairperson welcomed the representatives of the Department of Fertilizers (DoF), Ministry of Chemicals and Fertilizers to the sitting of the Committee convened for evidence on the subject 'Self-sufficiency in production of fertilizers with a view to curb imports – Review of constraints thereof'. Their attention was drawn to Direction 55(I) of the 'Directions by the Speaker', regarding confidentiality of the proceedings of the Committee before seeking inputs on Country's position in terms of production both Urea and NPK fertilizers and availability of raw material, their import dependence besides steps that can be initiated to address the constraints in the way of attaining self-sufficiency. The Committee also wanted to be apprised on the efficacy of present policy for scaling up domestic production and laying stress on the emerging technologies and alternative inputs, such as nano fertilizers, organic fertilizers, and bio-based solutions that may help in achieving self-sufficiency in the fertilizer sector besides adopting the innovative coal gasification technology to cut down dependence on natural gas.

3. The Secretary, Department of Fertilizers apprised the Committee by way of a power-point presentation on the background of the Fertilizer Sector, the initiatives underway and the steps required attain sufficiency. While replying to the queries, the Secretary apprised that the Country still depends upon foreign companies for the basic license for running, repair and maintenance of the plants manufacturing Urea besides pointing out the challenges and the steps required to address the future increase in demand of P&K fertilizers and the technological advancements required in the fertilizer sector. Clarifications on certain issues related to the fertilizer sector were also given by the representatives of the Department besides highlighting the limited reserves in respect of N, P & K in the country.

4. The Chairperson on conclusion thanked the Secretary, DoF and accompanying officers for providing valuable inputs to the Committee on the important aspects related to the subject and asked them to furnish written replies to the points that remained unanswered for consideration of the Committee.

(The witness then withdrew).

The Committee then adjourned.

(A copy of the verbatim record of the proceedings of the sitting has been kept.)

STANDING COMMITTEE ON CHEMICALS AND FERTILIZERS (2024-25)
MINUTES OF THE TWENTY SEVENTH SITTING

The Committee sat on Tuesday, the 19th August, 2025 from 1600 hrs. to 1700 hrs. in the Committee Room 'D', PHA, New Delhi**.**

PRESENT

SHRI AZAD KIRTI JHA - CHAIRPERSON

MEMBERS

LOK SABHA

2. Shri Brijmohan Agrawal
3. Shri Ajay Bhatt
4. Shri Robert Bruce C.
5. Dr. Kalyan Vaijinathrao Kale
6. Shri Malvinder Singh Kang
7. Shri Babu Singh Kushwaha
8. Shri Praveen Patel
9. Dr. Sambit Patra
10. Shri Balram Naik Porika
11. Shri Sachithanantham R.
12. Shri Eatala Rajender
13. Shri Rajesh Ranjan
14. Shri Daggumalla Prasada Rao
15 Shri Tharaniventham M. S.
16 Shri Nalin Soren
17 Shri Shivmangal Singh Tomar

RAJYA SABHA

18 Shri Subhash Barala
19 Dr. Bhagwat Karad
20 Shri Subhash Chandra Bose Pilli
21 Shri Naresh Bansal
22 Shri Meda Raghunadha Reddy
23 Shri Akhilesh Prasad Singh
24 Shri Tejveer Singh

SECRETARIAT

1. Smt. Maya Lingi - Joint Secretary
2. Ms. Miranda Ingudam - Director
3. Shri Kulvinder Singh - Deputy Secretary
4. Shri Nagendra Suman - Deputy Secretary
5. Shri Panna Lal - Deputy Secretary
6. Shri Abhishek Kumar - Deputy Director
7. Ms. Neelam Bhave - Under Secretary

2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee. Thereafter, the Committee took up for consideration, the following Draft Reports:

(i) XXX XXX XXX XXX

(ii) Fifteenth Report on the subject 'Self-sufficiency in Production of Fertilizers with a view to curb import of fertilizers – Review of constraints thereof' pertaining to the Department of Fertilizers, Ministry of Chemicals and Fertilizers.

3. Giving an overview of the important Observations/Recommendations contained in the draft Reports, the Chairperson solicited the views/suggestions of the Members.

4. After some deliberations the Committee decided to Adopt two (02) Draft Reports 14th and 15th with minor modification. The Committee then authorized the Chairperson to finalize the Reports and present/lay the Reports in the ongoing Session in both the Houses of Parliament. The Committee also authorize the Chairperson to present/lay the reports to the Hon'ble Speaker in case the House is adjourned sine-die.

The Committee then adjourned.