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Towards Self-Reliance

Agriculture is the vital sector of Indian economy. It contributes about 18% to GDP. There has been phenomenal growth in agriculture in the country after evolution of fertilizer responsive high yielding varieties of wheat and rice in the late 1960s followed by other crops. This is evinced from the fact that production of wheat and rice increased from 11.39 million MT and 30.44 million MT during 1966-67 to 112.93 million MT and 136.7 million MT during 2023-24, respectively. Same is the story of other field crops. Production of horticultural crops comprising of fruit and vegetable also showed rapid strides during the period and production of these crops reached a level of 352.2 million MT in 2023-24 as per the 2nd advance estimates. In spite of various challenges, to be addressed amicably by all stakeholders for further growth, the growth in agriculture is astounding by any yardstick so far.

Use of fertilizer is indispensable for agriculture development. It has been well documented that 50% increase in agricultural production is on account of fertilizer use. The fertilizer sector in the country has come a long way from the era of policy initiatives taken in late 1970s. The sector has fully supported the Indian agriculture transforming the country from a situation of ship to mouth to achieving food security for its ever increasing population. The country is also exporting a number of agricultural produces. India is now the second largest consumer and producer of fertilizers in the world. The population will continue to rise. The potential of HYV crops cannot be realized fully without use of fertilizers. The other sources of plant nutrients can only supplement nutrient requirements of HYV crops. Therefore, more impetus to enhance fertilizer consumption is of paramount importance to meet the food and nutritional need of burgeoning population.

The fertilizer sector has been playing a pivotal role in making fertilizers available to such a large number of farmers spread over a geographical area of about 329 million ha. The sector has also been a conduit towards reimbursement of subsidy to the fertilizer industry by the Government on behalf of the farmers for administrative convenience for the last 47 years. Therefore, role of the fertilizer sector cannot be over-emphasized. Ways and means need to be in place towards self-reliant in production of fertilizers in meeting the demand of the farmers from the indigenous sources.

The fertilizer plants are one of the best in the world in terms of energy efficiency, water conservation, environment and safety. With commissioning of new urea plants, production of urea has reached a level of 31.41 million MT in 2023-24. There had been 7.1% reduction in import of urea in 2023-24 compared to 2022-23. With commissioning of one more plant during 2024-25, import dependency on urea will further be reduced. The Government should recognize the legitimate elements of cost of production of urea under the pricing and subsidy policy. Formulate realistic energy norms from 2025-26, considering energy efficiency, vintage, energy mix, investment, fixed and variable costs. Industry has provided about 4.0 million MT additional production beyond reassessed capacity after de-bottlenecking plants and huge investment. Rationalization of policy for production beyond reassessed capacity is needed to make this production viable. All urea plants are now using natural gas as feedstock. However, there is not enough gas available in the country. More than 80% requirement of gas is met by imported liquefied natural gas (LNG). There have been uncertainties in prices and availability of LNG from time to time. Being the vital sector of agriculture development, allocation of domestic gas should be given preference to fertilizer sector. In view of economical production, plants using mix energy should also be given special dispensation.

In case of phosphatic fertilizers, production of P_2O_5 was 4.88 million MT against the consumption of 8.3 million MT in 2023-24. The operating installed capacity of P_2O_5 is 7.38 million MT. Excluding SSP, capacity utilization of P_2O_5 though other sources is nearly 76%. For SSP, it is less than 40%. Import dependency in case of phosphatic fertilizers can be minimized considerably, provided capacity utilization is

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improved. However, raw materials/ intermediates such as rock phosphate, phosphoric acid, ammonia and sulphur are mainly imported for production of phosphatic fertilizers. The prices of such commodities are manipulated by few dominated players in the world to the disadvantage of India. To tide over the problems, Indian companies have already set up joint ventures in phosphate rich countries such as Jordan, Senegal, South Africa, Tunisia and Morocco. The Government needs to facilitate more such ventures abroad for P&K fertilizers. Use of indigenous rock phosphate with proper beneficiation technology should be given more emphasis to enhance production of SSP. Use of phosphate rich organic manure having 8% P_2O_5 should also be encouraged.

The P&K Sector is facing issue of accumulation of input tax credited due to inverted duty structure. There is 5% GST on fertilizers, rock phosphate and sulphur and 18% on ammonia and sulphuric acid. In 53rd GST Council meeting, the matter was discussed and the council has referred the issue to Group of Ministers on rate rationalization. It is earnestly hoped that there will be an early and sustainable resolution of this issue.

The issue of reasonableness of MRP/profit for P&K fertilizer sector had been under discussion with the Department of Fertilizers with quite some time. The policy issued by the Department in November 2019 is also under discussion. There are several issues in calculation methodology for arriving at reasonable profitability. As the plants are getting older, surplus is needed to invest in reliable operation and safety of plant and equipment. Further, as mentioned earlier capacity utilization in the P&K sector has suffered due to high dependence on imported raw materials and finished products. Therefore, there is a need to have free MRPs of P&K fertilizers as per basic tenets of the NBS policy.

Regarding potash, import of MOP *i.e.* 6.36 million MT took place in 2010-11, when nutrient based subsidy (NBS) policy on P&K fertilizers was implemented effective from 1st April, 2010, for direct use in soil and manufacture of NPK complexes. Thereafter, it varied from 1.87 million MT in 2022-23 to 4.20 million MT in 2014-15. However, it showed a considerable improvement of 53.8% in 2023-24 over 2022-23. The country does not have any commercial proven potash reserves. Entire demand of K has to be met by import. Similar joint ventures for sustainable supply of MOP at reasonable price as stated for raw materials in production of P&K fertilizers are needed.

Government has brought potash derived from molasses (PDM) being generated from processing of sugarcane, under NBS policy. Good quantity of K_2O can be sourced from PDM after tapping its full potential. Research and Development initiatives to recover MOP or SOP from sea water had also been in place by one of the government laboratories but seems to have limited scope to derive K from sea water. There are deposits of about 1900 million MT of glauconite primarily in the states of Rajasthan, Madhya Pradesh, Uttar Pradesh and Gujarat. Glauconite is an iron-potassium-silicate (clay mineral) embedded in what is called greensand rock. It contains 5 to 8.5% K_2O in addition to iron, magnesium and host of micronutrients. Other K sources such as polyhalite and sylvite are also there. Therefore, indigenous sources of potash minerals need to be explored for use by the farmers wherever, feasible.

Fertilizer industry remains vital to agriculture productivity but operates under most controlled regime. The reform in the fertilizer sector is necessary in the interest of Indian agriculture and domestic production. Fertilizers are plant food and the farmers should make use of them sensibly. Use efficiency of fertilizer is low, more so of nitrogen. Introduction of 100% *neem* coated urea and development of sulphur coated urea have better nitrogen use efficiency compared to normal urea. Use of alternate fertilizers like bio-fertilizer, organic fertilizers, biomass, Nano fertilizers etc. helps to improve soil condition and supplement use of conventional fertilizers. While industry is making all out efforts to optimise production of fertilizers at low cost, Government should extend helping hand not only in the interest of self-reliance in fertilizer production but even for long-term economic and strategic interest of the country. ■