Frank Notes

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New Approach to Fertilizer Sector

Indian farmers have served the country well during the last forty-five years. They not only ensured the food security of this vast country but also generated large surplus for exports of food grains and other commodities earning valuable foreign exchange. Food grains production increased from less than 100 million tonnes in 1974-75 to 285 million tonnes in 2018-19. But these quantitative achievements have now been over shadowed by a number of adverse developments. Our crop yields per hectare of major crops are much lower than China and other neighboring countries. For example, average yields of paddy in India is 3695 kg/ha compared with 6937 kg/ha in China and in 4618 kg/ha Bangladesh. Poor use efficiency of plant nutrients particularly that of nitrogen in India is one of the reasons of low crop productivity. This has adversely affected economic viability of agriculture and farmers' income. The second important development is deteriorating soil health and over-exploitation of natural resources like water. Third, imprudent use of inputs has not only affected the crop yields but has raised environmental and sustainability issues. Fragmentation of land holdings has also prevented penetration of modern technology in farm practices.

Fertilizer remains the major input in realizing potential of high yielding variety seeds. Simple laws of mass and energy conservation dictate that one cannot realize high yields without input of sufficient plant nutrients to the soil. Sources other than chemical fertilizers can at best supplement the nutrient requirement of modern agriculture. However, it is equally true that there is need for very judicious use of chemical fertilizers. In fact, organic carbon content of soil is extremely important for physical, chemical and biological health of the soil. Application of organic fertilizers helps in better water use efficiency and in improving use efficiency of chemical fertilizers. Therefore, maximum benefit can be derived only when entire basket of plant nutrients from all sources - inorganic, organic and biological is utilized.

Policies related to fertilizer sector were formulated in 1970s with two objectives: first to encourage use of chemical fertilizers for realizing high crop yields with HYV seeds and the second to promote domestic fertilizer production to maintain supply of this vital input. Both these objectives were very well met which is reflected in spectacular growth both in consumption and production of fertilizers in the decades of 1980s and 90s. Fertilizer consumption increased from 2.6 million tonnes nutrients in 1974-75 to 27.2 million tonnes nutrients in 2018-19. Simultaneously production increased from 1.52 million tonnes to 17.9 million tonnes nutrients during the same period. Such a growth in consumption and production was achieved because the policy ensured affordable prices of fertilizers for the farmers and reasonable return on investment for fertilizer producers.

Subsequent distortions and lack of reforms in policies for the sector are hurting both agriculture and industry. These policies are partly responsible for imprudent use of inputs and creating sustainability issues. The present heavy subsidy on urea is acting as barrier for introduction of more efficient products which are being used world over.

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These products give much higher nitrogen use efficiency than urea. The present policies have also badly affected the viability of domestic production after 2000. Last but not the least, huge fertilizer subsidy which is basically public money can be utilized better to address the issues of soil health, crop yields and farmers' income. Therefore, in the interest of all stakeholders viz. farmers, industry and public there is need for fresh look on fertilizer policies and reboot the same at the earliest.

Any new policy for the sector has to be successful on three parameters. First or foremost, it should encourage balanced use of plant nutrients in integration with organic sources. The policy has also to take into account that India has committed at United Nations for Sustainable Management of Nitrogen. Resolution on Sustainable Management adopted by UN Environment Assembly recognizes the importance of nutrients including nitrogen 'in global crop production and food security'. But the resolution also states 'nitrogen use across global economy is extremely inefficient leading to water, air and soil pollution'. Efficient use of nitrogen in agriculture will have to be part of strategy for sustainable nitrogen management. One of the important considerations to promote efficient use of nitrogen is the pricing of nitrogen through different products. It should be same through different products and it should also be in correspondence with prices of the other two primary nutrients viz. phosphorus and potash. Therefore, new policy has to ensure that there is no distortion in prices of different nutrients as is the case today. It should also encourage introduction of new and more efficient fertilizer products to improve nutrient use efficiency.

Second, the policies should ensure viability of domestic production. India is the second largest consumer of fertilizers in the world. India is heavily dependent on imports of raw materials and finished products. The present level of self-sufficiency built over the years is absolutely essential to secure our suppliers and avoid exploitation in the international markets. The complete distortion of original policy has nullified one of the objectives of policy i.e. reasonable return on investment in urea production facilities. Many plants are logging negative return while others are operating on wafer thin margins. Present policies for the sector have put the domestic production of both urea and NP/NPK fertilizers at disadvantage vis-à-vis imports. Discrimination is there in terms of taxation regime, reimbursement of reasonable cost and timely settling of the bills of fertilizer subsidy. These issues need to be addressed in new policy to ensure continued viability of the sector.

Third and equally important consideration in formulation of policies is the fiscal sustainability. For last several years, government is finding it difficult to make adequate provision for fertilizer subsidy in Union Budget. Therefore, the level of subsidy should not only be calibrated to derive maximum benefit for soil and crop yields but should also be fiscally sustainable.

Keeping in view the above discussion, theme of the FAI Annual Seminar has been kept 'New Approach to Fertilizer Sector'. Eminent economists, scientists, technologists and policy makers will make presentations and participate in discussion. Recommendations emerging out of this important event should help the policy makers in overhauling the policy environment of this vital sector which is critical to viability of Indian agriculture and well-being of rural population. ■