

## FARM MECHANIZATION

**A boost to crop productivity and entrepreneurial spirit**

**S M Sehgal Foundation**

**T**he contribution of agriculture to India's GDP is 15.4 percent, which is higher than world's average of 6.4 percent. This massive contribution comes mostly through the use conventional farming practices. There is no estimated record on the total benefits that new mechanized methods of farming can bring.

A report of ICAR's Central Institute of Agricultural Engineering states that farm mechanization leads to input saving: in seeds up to 15–20 percent, fertilizers by 15–20 percent, and increased cropping intensity by 5–20 percent. Mechanization increases the efficiency of farm labour and reduces agricultural operation time by 15–20 percent.

However, India continues to practice farming through traditional, non-mechanized methods due to the small and scattered landholdings, a lack of information on available technologies and financial inefficiency, among other reasons.

Until a few years ago, Ram Pukar Khushwaha from East Champaran, Bihar, was one such farmer. Today he is a trendsetter in his region. He was one of first few farmers to adopt mechanization practices.

S M Sehgal Foundation (Sehgal Foundation), with support from partners, started working in Bihar on agricultural interventions that included promoting the use of agricultural machinery including potato planters, laser leveling, maize shellers, reapers, zero tillage, solar water pumps, and solar pumps. All these machines are well-suited for small agriculture.

### **Making farmers ready for smart agriculture**

Well aware of the constraints farmers face in adopting farm machinery, the Foundation team follows a capacity-building approach to sensitize farmers on the technologies available and their benefits before promoting them in the community. Farmers contribute partially to the cost of the machinery and use government subsidies for use of the equipment. Cost contributions instill a sense of ownership among the farmers. They are also trained on operations and maintenance of machines, along with asset sharing within their cluster.

The promotion of farm machinery supplements the farmer's agro-based requirements. It has given them an opportunity to be entrepreneurs with a means to gain additional income by renting the machines to fellow farmers on an hourly or per acre basis.

Every extra rupee earned by a farmer from the use of these machines helps farmers better their livelihood. Those who take the machines on rent save on input costs and increase their crop productivity. Entrepreneurship builds confidence and makes farming remunerative, thus ensuring greater food security.

## UNION BUDGET 2020

**HAS MORE THAN HIGHS AND LOWS**

**T**he first pillar of the Union Budget is 'Aspirational India'. This entails reforms across large swathes of the economy. It would also mean creating more jobs in the private sector ensuring higher productivity and greater efficiency.



**Prithwi Singh**  
Co-founder and CEO,  
Superzop

### **TRANSFORMATION OF THE AGRICULTURE SECTOR**

The government is committed towards doubling farmers' income by 2022. This is indicated by the importance shown towards the liberalization of farm markets and promotion of technology in the sector. Price realization is linked to demand supply equations which means higher demand creation and ensuring supply at the time of higher demand. This will not only increase information flow but also create direct demand by allowing more players to buy easily and directly. This will further allow supply chain players to better predict supply and demand especially in agri commodities by creating solutions to fulfill demands like storage etc.

Policy Makers should also try to put in place a national forecasting system, especially in dry agri commodities, to reduce unplanned imports as they may jeopardize any long term investment in supply chain and thus product carrying cost can't be recovered in those scenarios. With Non-Banking Finance Companies (NBFCs) and co-operatives already active in the agriculture credit space, the NABARD re-finance scheme will be further strengthened and expanded. The increase in the agriculture credit target from INR 12 lakh crore to INR 15 lakh crore, along with the government's 16-point action plan is a step in the right direction towards the goal of doubling farmer's incomes by 2022.

A physical infrastructure at the taluka level for storage, processing of agricultural products will allow public private partnership to further utilize them. A payment infrastructure is must for farmers to get quick loans against produce so that distress selling can be avoided. Farmer Produce Organizations (FPOs) capacity needs a significant boost especially in market linkages with Agri startups. The entire sector shall reap in the benefits of markets for agricultural produce being liberalized as it will bring more players on the demand side and will help the suppliers, i.e., the farmers, to get better and competitive prices for their produce.

### **WHEELS OF OUR ECONOMY: MSMEs**

A Government e-Marketplace (GeM) has been created as a Unified Procurement System providing a single platform for procurement of goods and services. It offers a great opportunity for MSMEs to expand their businesses. We are looking forward to the new 'National Logistics Policy' to create a single window e-logistics market and focus on generating more jobs, developing the skills that will lead to MSMEs being far more competitive.