



## MECHANIZATION FOR MODERNIZATION

**A**gricultural mechanization is very relevant for Indian agriculture. The farmers too are recognizing it. The farm equipment market in India estimated at USD 8.8 billion in 2017 is now expected to reach USD 12.5 billion by 2022.

It is a known fact that farm mechanization reduces the cost of cultivation and increases productivity. Use of improved implements has potential to increase productivity up to 30 per cent and reduce the cost of cultivation up to 20 per cent. It can also be the answer for increasing agriculture exports, addressing labour shortage, and encouraging judicious use of farm inputs.

Indian conditions have not been an easy terrain for the agricultural machines. Fragmented land holdings, strained spending capacity of small and marginal farmers, pricier farm technology, subsistence agriculture and diverse geographical conditions have perennially impeded the growth of farm mechanization in India. But relevant schemes like Sub Mission on Agricultural Mechanization (SMAM) launched in the year 2014-15 has tremendously improved the access of agricultural machines and equipment to Indian farmers. Custom hiring centers established in the country has assisted farmers in procurement of various agricultural machinery and equipment. During 2020-21 alone, 9432 CHC were established under the SMAM scheme.

Looking at the future, I see immense scope in this field. Apart from the government interventions, many start ups can evolve models that can propagate farm machines and assist farmers in choosing the equipment appropriate for his farming needs. Research and development can be focussed on developing need-based and regionally differentiated machinery. Tractor penetration has increased from one per 150 hectares to one per 30 hectares.

However, such an increase in penetration has not been seen in other segments of farm equipment. As per-capita land holding of Indian Farmers is decreasing, small farm machineries / implements (individually operated) need to be promoted. Youth can be specifically trained and financially supported (credit linked back-end subsidy) to set up CHCs. Agriculture is evolving. The needs of farms are changing. As women form a formidable part of Indian agriculture, India should be looking at developing gender sensitive equipment and may be train a women force in agri mechanization. Custom hiring models and Agriculture Machinery Banks have also been suggested to mechanize Indian agriculture.

