INDIAN FARM MECHANIZATION MARKET
Indian Farm Mechanization Market Overview

The agriculture sector in India has witnessed considerable decline in the use of animal and human power in agriculture related activities. The trend has paved the way for introduction of agricultural machinery mostly driven by fossil fuels such as tractors, diesel engines resulting in a shift from the traditional agriculture to a more mechanized version.

Though, farm mechanization in India stands at about 40%-45%, it is still low when compared to countries such as the U.S. (95%), Brazil (75%) and China (57%). While the level of mechanization lags behind other developed countries, it has seen strong growth through the last decade. The farm power availability on Indian farms has grown from 1.47 kW/ha in 2005-06 to 2.02 kW/ha in 2013-14.

INDIAN FARM MECHANIZATION MARKET

The Indian farm mechanization market, which was valued at Rs.320 billion in 2015-16, is expected to grow at a CAGR of 5.74% to reach Rs.400 billion by 2019-20. Shortage of farm labour and the need to enhance farm productivity are among the main reasons for increasing farm mechanization in India.
However, farm mechanization provides different streams of employment related to handling of farm machines thus resulting in increased rural employment. Increased farm mechanization is a key step towards doubling farmer’s income and better rural prosperity.

The availability of abundant and cheap labor in India has largely confined farm mechanization to tractors and power tillers. While tractors and power tillers still outsell other farm equipment like paddy transplanters and combine harvesters, the gap has narrowed in recent years. With rural youth migrating to cities in search of better jobs, a big market for specialized machineries, such as threshers, rotavator, transplanters, reapers, zero till drills, laser levellers and power weeders is being created.

**INDIAN TRACTOR MARKET**

Tractor is the largest segment in the equipment category with an annual sale of 600,000-700,000 units. The market has grown at a CAGR of 8.62% till 2014-15. However, there is a sharp downturn since 2015-16. This has been attributed to a reduction in farm incomes due to the decline in production of major crops as well as softening commodity prices with lower procurements by the government on account of adequate buffer reserves. Penetration of tractors in India is higher in northern India, mainly Punjab, UP and Haryana.

Within the tractor market, the 41-50 HP segment is the largest selling unit, followed by the 31-40 HP segment, which has been sourced mainly from the > 50 HP segment.

While the country produces a large volume of tractors, it also exports tractor units to other countries across the world. On an average, the country exports 60,000 tractors annually. India’s tractor export markets primarily include African countries and ASEAN countries where soil and agro-climatic conditions are similar to India.
The major players in the market include, Mahindra & Mahindra, TAFE, VST, International Tractors, Force Motors and Escorts.

**INDIAN POWER TILLER MARKET**

A larger portion of the farming population of the country falls into the small and marginal segment. Hence, affordability of farming equipment and the size of the yield are some of the factors that come into play. Hence, the power tiller category has not seen much growth in the past several years.

However, if compared, then utility wise, power tillers can perform a lot of functions just like tractors in the fields. Tractors cannot till the land, cultivate crops, and are especially difficult to use in smaller fields.

Power tillers are particularly useful in rice fields. China is the largest rice producing country in the world, and Sifang and Dongfeng Motors as the main suppliers in the country. Next in line is India, with companies like Crompton Greaves, Shrachi, VST and KOEL, Indonesia (Quick Tractors, Yanmar), Vietnam (VEAM), Thailand (Siam Kubota), and Japan (Kubota, Yanmar, Mitsubishi).

The Indian power tiller market, in terms of the volume has been fluctuating during 2011-17. Domestic power tiller industry is government subsidy-driven and the subsidy can range from Rs. 40,000-Rs. 90,000 per power tiller and can even extend beyond Rs.1,00,000 for farmers belonging to economically backward class.

The penetration of power tillers in India is higher in southern and eastern India as compared to the others parts of the country on account of the small size of land holdings per farmer in these respective regions.

In fact, small land sizes and high cost of labor, coupled with rising income levels in rural areas, provide a huge untapped opportunity.

The average farm power availability in the country is still at a low level as compared to other developing countries. Unlike other agricultural sectors, farm mechanization sector in India has a far more complex structural composition. It is facing various challenges related to farm machinery and equipment, technology, markets, operations, legislations, policy framework and other related areas. Land size, cropping pattern, market price of crops including Minimum Support Price (MSP), availability and costs of labor are the major factors deciding the growth of agricultural mechanization. The production and productivity in Indian agriculture cannot be enhanced by primitive and traditional practices of farming. However, the tractors, power tillers, combine harvesters, rotavators, threshers and rice transplanters are some of the equipments for which a surge in demand has been witnessed over the past few years.