



NCAER Report on Farm Machinery Industry in India

For Prelims: Farm Machinery Industry, Farm power, Science & Technology (S&T) Cluster programme, Make in India, Sub-Mission on Agricultural Mechanization Scheme.

For Mains: Major Challenges Related to the Farm Machinery Industry, Ways to Revitalise Farm Machinery Industry.

Why in News?

[National Council of Applied Economic Research \(NCAER\)](#) Report on "**Making India a Global Power House on Farm Machinery Industry**" released recently.

- NCAER has analysed the **non-tractor farm machinery industry** from both demand and supply side perspectives, **bringing out the challenges in the sector**, and **recommending measures & reforms by benchmarking global practices**.

What is the Farm Machinery Industry?

- The **Farm Machinery Industry** is an industry sector that **produces and supplies a range of machinery, equipment, and tools used in agriculture and farming activities** such as ploughing, planting, harvesting, and more.
 - These machines are **designed to improve productivity and efficiency in farming operations**, and the industry encompasses both small-scale and large-scale farming equipment.
- Some examples of products offered by this industry include **tractors, combine harvesters, irrigation systems, tillers, and more**.

What are the Major Challenges Related to the Farm Machinery Industry?

- **Limited Domestic Demand:**
 - There is a mismatch between what the **organised farm machinery sector produces and the needs of [small and marginal Indian farmers](#)**.
 - Although there is high State-level variation, in **2018-19 barely 4.4% of farmer households in India owned a tractor**, 2.4 % used a power tiller and 5.3 % owned one of the four machinery items.
- **Dependence on Imports for Non-Tractor Machinery:**
 - Farm machinery **exports are driven by the tractors**, and **farm machinery imports are driven by non-tractor farm machinery imports**.
 - Further, the direction of trade is lopsided where **53% of non-tractor farm machinery imports are coming from China**.
- **Lack of Adequate Power:**

- With the increase in intensity of cropping, the **turnaround time is drastically reduced**. Availability of **adequate farm power is very crucial for timely farm operations** for increasing production and productivity and reducing losses.
- However, our [farm power](#) availability is at **2.49 Kw/ha in 2018-19** which is much lower as compared to **Korea (+7 kw/ha), Japan (+14kw/ha), USA(+7kw/ha)**

How can the Farm Machinery Industry be Revitalized?

- **Encourage Local Innovation:**
 - Entrepreneurship ecosystems should be created and encouraged in **local education institutes; they may also partner with farm machinery firms**.
 - For help on patents, **district-level patent offices** need to be opened and strengthened and **state agricultural universities' patent offices need to cater to the needs of local communities**.
 - **Research-linked incentive (RLI)** is also recommended for innovations in light farm machinery and futuristic precision farming.
- **Non-tractor Farm Machinery Cluster:**
 - There is a need to set up a **non-tractor farm machinery Science & Technology Cluster** under the aegis of the [Science & Technology \(S&T\) Cluster programme](#).
- **Level-playing Field for Indian Manufacturers:**
 - Given the unfair competition that Indian manufacturers **face, it should be mandated that farm machinery that is sold under government subsidy on government DBT portals** (both Central and State) **follow the revised public procurement norms** with regard to preference to ['Make in India'](#) goods.
 - Localisation should be promoted by **simultaneously maintaining international quality standards**.
- **Vision for Export Hub:**
 - The **Ministry of Agriculture & Farmers Welfare** is already promoting farm mechanization through various schemes and programmes like the [Sub-Mission on Agricultural Mechanization Scheme](#). But India needs a **vision for the next 15 years to translate itself into a production and export hub** for the non-tractor farm machinery.

[Source: PIB](#)

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