



Custom Hiring Centers aid farm mechanization levels

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October 2016

Increase in farm mechanization levels the need of the hour to help keep pace with ever growing demand for agricultural produce

Individual ownership of farm machinery for mechanization of small farm size holdings remains uneconomical; creation of farm machinery banks could prove to be the game changer

Farm mechanization levels remain low; Custom Hiring remains the most viable solution

Agriculture sector remains the mainstay of India's rural economy, being a significant contributor to rural employment. Although numerous initiatives have been taken over the years to aid agricultural growth, it hasn't kept pace with demand for agricultural produce. The most obvious reason for the same is the inherent imbalance in the demand and supply, wherein India's population (~17-18% of the total world population) is much higher than the agricultural land available; as such, maximizing farm productivity levels remains of paramount importance.

Though there have been various initiatives undertaken with a view of enhancing farm output through usage of technology, crop yields still continue to be at low levels; which can be attributed to a relatively low level of farm mechanization. Given that an increasing population base coupled with expected increase in per capital consumption would require sizeable growth in crop yields to achieve food security, it is imperative to increase the farm mechanization levels from current levels. The fact that the sector faces shortage of labour, due to enactment of various rural employment guarantee programs providing alternative employment avenues, also makes the case for mechanization stronger. A key hindrance to increasing farm mechanization levels has been the small average farm size holdings in the country. On account of small land holdings, ownership of farm machinery for marginal farmers has become prohibitively expensive; as a result, farm mechanization remains largely limited to a small section of farmers with large land holdings. In this regard, creation of farm machinery banks, which makes available farm machinery at affordable rates to farmers, is the way forward to circumvent the land holding issue.

Table: Farm Size Holdings

	% of Holdings				Average Size of Holding (Hectares)			
	1995-96	2000-01	2005-06	2010-11	1995-96	2000-01	2005-06	2010-11
Marginal (0-1 ha)	62%	63%	65%	67%	0.40	0.40	0.38	0.39
Small (1-2 ha)	19%	19%	19%	18%	1.42	1.42	1.38	1.42
Semi-Medium (2-4 ha)	12%	12%	11%	10%	2.73	2.72	2.68	2.71
Medium (4-10 ha)	6%	5%	5%	4%	5.84	5.81	5.74	5.76
Large (Above 10 ha)	1%	1%	1%	1%	17.20	17.12	17.08	17.38
Overall	100%	100%	100%	100%	1.41	1.33	1.23	1.15

Source: Agricultural Census 2010-11 – Ministry of Agriculture; ICRA research

Custom Hiring centers on the rise in several states

Custom Hiring aims to promote farm mechanization in the country, by making available, relatively expensive, productivity enhancing implements at affordable rentals to the farming community. A custom hiring centre (CHC) owns a set of farm machinery, equipment and implements, which is given on rental basis to farmers; an ideal centre houses farm machinery and equipment for tillage operations of all crops, with crop specific equipment also maintained to a lesser extent. CHCs enable small farmers to use high technology farm machinery, while avoiding the pitfalls of high debt levels.

Keeping in mind the important role CHCs can play in developing the agricultural sector in India, both the central and the state government have been promoting establishment of such farm machinery banks through various subsidy/promotional schemes. A number of farm machinery banks have been set up in various states, through public private partnership in some cases, which are engaged in training, demonstration and rental of high cost farm machinery and equipment.

Table: Examples of Government Led CHC Initiatives

State	Details
Karnataka	<ul style="list-style-type: none"> Initiative to promote custom hiring centre dates back to late 80s and early 90s, when local cooperatives were appointed to run such centers; the initiative failed to gather steam, however, in wake of easy availability of rural labour and lack of awareness of benefits of farm mechanization Scheme revived in 2014 and charitable trusts invited for establishing CHCs and two private entities - Shri Kshethra Dharmasthala Rural Development Project and Indian Society of Agribusiness Professionals, established 178 CHCs around the state; Each center allotted a budget of Rs 75 lakh for two year period (with state government contributing 75% and 50% in the first and second year respectively) The State Government announced plans in March 2016 to establish over 300 additional CHCs in 2016-17; In March 2016, VST Tillers & Tractors entered into an agreement to establish 92 CHCs; In July, 2016, John Deere announced its plans to set up 116 CHCs in the state OEMs can opt to operate CHCs through their franchises, which are generally allocated to their dealers; OEM only monitors and reports the activity in the CHC, which is used by the government to extend subsidy for farm machinery purchase
Madhya Pradesh	<ul style="list-style-type: none"> Scheme named 'Yantradoot village' launched in 2009; Under the scheme, district level officers of the Department of Agriculture Engineering demonstrate the use of farm implements to farmers in villages spread across districts After field demonstrations, CHCs are set up, which make farm implements available on hire at nominal prices State government also provides assistance to professionally run CHCs to enhance usage of farm implements and tractors; Assistance to the tune of 50% of the cost of machines and implements is provided (maximum assistance capped at Rs 50 Lakh)
Tamil Nadu	<ul style="list-style-type: none"> Financial assistance provided in 2014-15 under the centrally sponsored scheme of Sub Mission on Agricultural Mechanization; share of assistance between central and state changed to 50:50 in 2015-16 from earlier assistance pattern of 75:25 About 142 farm machinery banks for custom hiring (each having a potential of Rs. 25lakhs) are being established (or planned to be established) with subsidy assistance of 40% of unit cost or a maximum of Rs. 10 lakh per center
Punjab	<ul style="list-style-type: none"> Agro service centers initially set up in 70s with an aim of facilitating easy availability of farm machinery; initiative however failed to pick up steam Under the currently operational model, Primary Agriculture Credit Societies and other state agencies are engaged in setting up farm machinery banks to enhance utilization of costly underutilized machines; One time capital assistance provided by Punjab State Farmers Commission to facilitate setting up of these farm machinery banks

Source: ICRA research

Government promoting creation of Custom Hiring centers through Financial Assistance

The Government of India introduced the Sub Mission on Agricultural Mechanization (SMAM) programme in 2014-15 under the twelfth five year plan, with an objective of having an integrated programme dedicated towards promoting agricultural mechanization in the country. The scheme aims to enhance farm power availability to small and marginal farmers, with a view of helping farmers improve productivity levels. Under the SMAM programme, financial assistance for setting up custom hiring centers is provided by the government to rural entrepreneurs, village self help groups as per the pattern provided below:

Table: Financial Assistance under SMAM for establishment of Farm Machinery Banks for Custom Hiring

S.No.	Item	Max Permissible Project Cost	Pattern of Assistance
A	Procurement subsidy for establishment of Custom Hiring Centre upto 10 lakh	Project based Rs. 4.0 lakh	40%
B	Procurement subsidy for establishment of Custom Hiring Centre upto 25 lakh	Project based Rs. 10.0 lakh	40%
C	Procurement subsidy for establishment of Custom Hiring Centre upto 40 lakh	Project based Rs. 16.0 lakh	40%
D	Procurement subsidy for establishment of Custom Hiring Centre upto 60 lakh	Project based Rs. 24.0 lakh	40%

Source: Ministry of Agriculture, Operational Guideline for Sub-mission on Agricultural Mechanization

Table: Financial Assistance under SMAM for establishment of Hi-Tech, High Productive Equipment Hub for Custom Hiring

S.No.	Item	Max Permissible Project Cost	Pattern of Assistance
A	Procurement subsidy for establishment of Custom Hiring Centre upto 100 lakh	Project based Rs. 40.0 lakh	40%
B	Procurement subsidy for establishment of Custom Hiring Centre upto 150 lakh	Project based Rs. 60.0 lakh	40%
C	Procurement subsidy for establishment of Custom Hiring Centre upto 200 lakh	Project based Rs. 80.0 lakh	40%
D	Procurement subsidy for establishment of Custom Hiring Centre upto 250 lakh	Project based Rs. 100.0 lakh	40%

Source: Ministry of Agriculture, Operational Guideline for Sub-mission on Agricultural Mechanization

Table: Financial Assistance under SMAM for promotion of Mechanized operations/hectare carried out through custom hiring centers

S.No.	Item	Max Permissible Project Cost	Pattern of Assistance
A	Hiring Charges to farmer members of Farm Machinery Banks	Upto a maximum of 1 ha area as per following norms (i) For tractor/power operated operations – Rs. 2000/ha per farmer per year (ii) For animal drawn mechanized operations- Rs. 1000/ha per farmer per year (iii) For manual operations – Rs. 750/ha per farmer per year	50% of the cost of operation/ha
B	Field Demo by CHCs	Minimum 120 ha/season per Custom Hiring Centre	Rs. 4000/ha

Source: Ministry of Agriculture, Operational Guideline for Sub-mission on Agricultural Mechanization

Private Players also setting up farm machinery banks

While the government has been promoting creation of farm machinery banks by various farmer cooperatives, private players have also entered the fray in setting up CHCs. While these initiatives vary on business models and area of operations, the core objective is promotion of farm mechanization at affordable costs. Some key examples of these initiatives are encapsulated in the table below:

Table: Examples of private CHC Initiatives

Private Player	Details
EM3 Agri Services	<ul style="list-style-type: none"> Company currently has 10 farm service centers, termed as Samadhan Kendras, which are engaged in providing tractors and various other equipments at affordable cost to small and marginal farmers; Started by Mr. Rohtash Mal (erstwhile CEO of Escorts Limited), the first phase of the initiative involved setting up Samadhan Kendras in Central India EM3 aims to enhance its presence on a pan-India basis over the next 10 years; The company raised funding of Rs. 27.5 Crore from Soros Economic Development Fund, via Aspada Investments in 2015, which would help the company in its expansion drive It has entered into arrangements with ITC's e-Choupals and farmers cooperative Small Farmers Agribusiness Consortium (SFAC), with a view of enhancing its farmer reach
Zamindara Farm Solutions	<ul style="list-style-type: none"> Zamindara Group has a long standing experience in the agriculture business, wherein the group started trading of imported tractors about five decades ago; Currently, besides being a large supplier of agricultural goods and services, the company operates farm machinery equipment banks as well Tractors and other farm machinery available on rental in states of Punjab, Haryana and Rajasthan initially under various projects started by the company
Mahindra & Mahindra Limited	<ul style="list-style-type: none"> In March, 2016, Mahindra & Mahindra Limited (M&M), India's largest tractor manufacturer, announced its entry into the agricultural rental industry with the launch of Trringo, a franchise based rental service; Initial investment of Rs 10 Crore by M&M with operations in five states - Maharashtra, Gujarat, Madhya Pradesh, Karnataka and Rajasthan Works under two business models – one wherein a franchise invests in tractors and equipments and the second one wherein large farmers, who own expensive machinery rent out the same to optimize utilization A proprietary digital platform and application connects the farmers to the franchise operators

Source: ICRA research

Effective implementation remains the key

While custom hiring solutions are gaining prominence across several regions, the initiative also faces its own set of challenges in achieving end objective. Some factors that could determine the extent to which custom hiring centers are successful in achieving their intended objectives are:

- Equipment list for the CHC's farm machinery should be drawn up with inputs from farmers of nearby area of operations
- Adequate training should be provided for proper use of machinery to achieve improved productivity

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- Regulation of the CHC initiatives to prevent these initiatives from using their scale of operations as an opportunity to monopolize
 - Promote awareness of the merits of custom hiring among the farming community; Encouraging farmer cooperative, unemployed rural youth and various village level institutions to set up CHCs
 - Integration of these initiatives with other key operations in the agricultural value chain such as availability of various agri inputs
 - Credit on rentals for farm machinery can be counterproductive in the longer term and should be avoided

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